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The Sources of Geoffrey of Monmouth

II. The Stonehenge Story

by STUART PIGGOTT

IN a previous paper in ANTIQUITY (September 1941) I indicated briefly the complexity of the interpretation of the jumbled myth, legend and fantasy contained in the *Historia Regum Britanniae*, and discussed the sources which seem likely to have been used by its unscrupulous author for those parts of the work which purport to deal with the pre-Roman ages of Britain. These sources appear in the main to have been a version of the *Historia Britonum* of Nennius and a collection of pedigrees of ruling houses of the Welsh Dark Ages; a variety of other classical and Celtic material was laid under contribution for embellishments, but there was certainly nothing that could be connected, even indirectly, with any source earlier than that of the classical writers' accounts of the Roman conquest and occupation of Britain. Geoffrey's prehistory is in fact completely bogus, and while it may sometimes incorporate interesting fragments of early medieval history or legend, it bears no relation whatsoever to the period it professes to chronicle.

On the other hand, in that part of the *Historia* allegedly treating post-Roman history, Geoffrey relates at some length a story dealing with the building of no less a prehistoric monument than Stonehenge itself. Now this story is on the face of it probably more fantastic than any other in the whole of his extensive series of legends: it is a tale of sheer magic, with so little apparent connexion with any possible events that it was for generations dismissed either as one of the flights of

Geoffrey's fancy or as a folk-tale from a Celtic fairy-land. To the rationalist antiquaries of the nineteenth century the story of the bodily transportation under Merlin's direction of a great stone circle from the remote west to Salisbury Plain, could obviously be brushed aside with an Olympian assurance, and it was left, paradoxically, for the precise and exact determinations of science in our own day to announce, through the late Dr H. H. Thomas, that a large proportion of the Stonehenge stones had indeed been brought, if not from Ireland as Geoffrey's legend relates, at least from a hardly less surprising and remote district: West Wales. Furthermore there is evidence of their having formed part of a structure earlier than that in which they now find a place and perhaps before their transportation to the site of Stonehenge—they may represent in fact not merely the natural products of a distant quarry but the transportation and re-adaptation of a Welsh stone circle to a Wiltshire site.

Now this correspondence between legend and fact is so remarkable that it can hardly be dismissed as mere coincidence. On the other hand, the assumption that there is a link between an event which took place between 2000 and 1500 B.C., and a legend first making its written appearance in A.D. 1136, obviously presents remarkable difficulties, and the lines of approach which I put forward must be regarded only as the most tentative and hypothetical outlines which the literary and the archaeological evidence, taken in conjunction, suggest.

We may now turn to a fuller consideration of the facts available—on the literary side the details of Geoffrey's story, and on the archaeological, of the 'foreign stone' element in Stonehenge. The story as given in the *Historia* (Bk. VIII, 9–12), runs as follows. The Dark Ages ruler, Aurelius Ambrosius, wishing to erect a monument to commemorate those massacred by Hengist near Ambresbury, is advised to consult Vortigern's prophet, Merlin, who is to be found at the Fountain of the Galabes in the country of the Gewissae. Merlin advises him to send for the *chorea gigantum que est in killarao monte hybernie*, the stones of which had been brought from Africa and possessed magical healing powers. Ambrosius therefore makes a warlike expedition to Ireland, where he conquers the king Gillomanius and acquires the stones, which are then brought by Merlin's magic arts on to the ships, and thence transported to Salisbury Plain, where they are set up.

The archaeological position with regard to the 'foreign stones' at Stonehenge is briefly as follows. After various guesses as to their origin, some fairly near the truth, this was definitely established by Dr

H. H. Thomas in 1923.[1] From petrological examination by microscopic sections he found that the only place where the stones were matched as a group was the Carn Meini region of the Presely Range in Pembrokeshire, where the various rhyolites and the unique spotted dolerite occur. The ' Altar Stone ' was found to be a sandstone either from the Cosheston beds near Milford Haven or the Senni beds of south Carmarthen and Brecknock. Subsequent research has shown that the Presely stones were also used to make axe-hammers of ' Beaker ' type which are found at widely scattered sites in Wales, and two polished axes have actually been identified as imports in northern Ireland.[2] This exploitation of igneous rocks for axes is of course a part of the widespread system of manufacture and trade in these commodities which petrological research is now beginning to establish on a firm footing,[3] and though in some measure it brings the Stonehenge episode into connexion with the general movements of trade of the period, this in no way minimizes the fantastic nature of the actual event. Mr W. F. Grimes, in a notable topographical study of the Welsh terrain,[4] comes to the conclusion that the most probable method of transport would be ' a land route [from Carn Meini] to a suitable point of embarkation ' in the Haverfordwest region, thence to Wiltshire by sea—either across the Bristol Channel to the Mendips and through the Frome Gap in the forest belt on to the chalk, or by sea round Land's End and thence up the Avon.

It will be seen that the correspondence between the two elements, the legendary and the archaeological, are sufficiently curious to be worth further discussion ; we have to consider the various means by which such a legend, ultimately based on the facts, could have found its way into Geoffrey's text. If we assume it to have been completely invented by him, we are of course thrown back on the pure coincidence theory, which I do not think tenable in the face of such exact and improbable similarities. But it might be argued that, as so often the case with an apparent ' folk-memory ', we are merely dealing with an aetiological myth, either invented by Geoffrey or taken by him from popular talk, to explain the presence on Salisbury Plain of a monument

[1] *Antiquaries Journ.*, 1923, III, 239–60.

[2] ANTIQUITY, 1936, X, 220–1, with references.

[3] cf. the First Report of a Committee of the Southwestern Museums on this problem in *Proc. Prehist. Soc.* 1941, VII.

[4] *Map of South Wales showing the distribution of Long Barrows and Megaliths*, pp. 7–9 of introduction. (Ordnance Survey, 1936).

constructed of stones which appeared to be derived from a remote source. This, while possible, is not I think convincing. Twelfth-century science was hardly sufficiently advanced to question the presence of spotted dolerites in a cretaceous landscape, and while Wiltshiremen would know sarsens for the local rocks they were, the only popular theory to account for their origin by visitors seems to have been, that they were artificially made from a sort of Druidic cement.[5] While the building itself might well be regarded as the work of giants or of wizardry, it would be unnecessary to invoke the transportation of its stones from afar—stones were just stones and might occur anywhere, and only their arrangement in an architectural manner as at Stonehenge would call for comment. In parenthesis I think it not unlikely that the absence of any early medieval records of other stone circles, including Avebury, is due to the fact that they were regarded as natural objects of the countryside, in which by a whim of the Creator the stones stood on end and in some sort of order.

Unless then we have in Geoffrey's story an aetiological myth which (again by coincidence) hit on very nearly the true facts, we must examine other possible sources. Discursive reading and a retentive memory resulted in his filling his narrative with a mass of stories, allusions and reminiscences from the most diverse sources, some of which have been pointed out but many await identification. His secular reading included, as well as Nennius and Gildas, not only Livy, Virgil, Ovid and some minor Latin poets, but Apuleius; he was familiar with geographers such as Solinus, Pomponius Mela and Strabo, and used the *Origines* of Isidore of Seville and probably Bede's *De Natura Rerum* as well as his *Historia Ecclesiae*, and the Jerome-Eusebius chronicle.[6] But from none of these sources could he have obtained a Stonehenge legend, nor one which would suggest itself for adaptation in the way for instance in which he transferred Mela's nine virgins of the Isle of Sein to Avallon in his *Vita Merlini*.[7] It is of course far more difficult to assess his debt to the popular stories which were the common property of the courts of medieval Europe and are exemplified by the collection in the *Gesta Romanorum*, or the French romances. In these stories Oriental and other exotic influences are often clearly present, and that Geoffrey's store of legendary matter was not confined to

[5] e.g. John Aubrey, *Remains of Gentilisme* (Folk-lore Society, 1881), 273.

[6] J. J. Parry, *The Vita Merlini* (Univ. of Illinois Studies in Language and Literature), 20.

[7] *Chorog*, III, 6, 48; *Vita Merlini*, ll. 908 ff.

classical and the debated Celtic sources later to be mentioned is shown for instance by his knowledge of the story of Wayland.[8]

It is the Celtic sources to which we may turn with most hope. In my previous paper I summarized the arguments which have rendered baseless Geoffrey's claim to have translated (however freely) from the Welsh a book of Celtic history, but at the same time I endeavoured to show that he most probably used a book of early Welsh pedigrees for the construction of part of the *Historia*; other than this it is difficult to trace any evidence of his direct use of Old Welsh manuscript sources. But far more difficult is to confirm or refute the indirect use he may have made of oral tradition or Welsh legends read and half forgotten. On this, the opinion of the scholars has been divided, but Prof. J. J. Parry has I think brought forward convincing evidence of Geoffrey's use, at all events in the *Vita Merlini*, of genuine sources in Welsh tradition and literature,[9] and the strong probability of an oral Welsh basis for the Prophecies of Merlin was well demonstrated by the late Enid Griffiths.[10] Such use is, on the face of it, probable, but it is in its very nature difficult to analyse or to produce evidence amounting to exact proof, since much depends on stylistic criteria. And it is precisely on these equivocal and unsatisfactory grounds of style that I would suggest that the Stonehenge legend as recorded by Geoffrey bears a distinct affinity to Welsh tradition, and in particular to one story to which attention in this connexion was first directed, I believe, by Prof. O. T. Jones of Cambridge.[11]

One of the four tales which form the early nucleus of the medieval Welsh collection known, since Lady Charlotte Guest's translation, as the Mabinogion, is the story of Branwen, daughter of Llyr, in which there occurs the following episode. Bran the Blessed, having led an expedition to Ireland to avenge the wrongs done to his sister Branwen,

[8] *Vita Merlini*, ll. 235–6 . . . *aurum gemmasque micantes, pocula que sculpsit guielandus in urbe sigeni.* Geoffrey's reference to Wayland as a worker in precious metals (cf. King Alfred's *hwaer sint nu thaes wisan welandes ban, thaes goldesmithes the waes geo maerost—Boethius De Consol. Philos.* II, vii) suggests a knowledge of the original Norse legend, in which Wayland makes silver-mounted cups from the skulls of Niduth's children, rather than the French romances, where 'Galland' is invariably a magic swordsmith. It was in this latter capacity of course that he gave his name to the famous chambered tomb in Berkshire. (Depping & Michel, *Wayland Smith* (1847); Grinsell in *Trans. Newbury F.C.*, 1939, VIII, 136–9).

[9] op. cit. esp. 15–20; 127 ff.; *Philolog. Quarterly* (Iowa), 1925, IV, 193–207.

[10] *Early Vaticination in Welsh* (Cardiff, 1937).

[11] In conversation with my friend Mr Peter Fitzgerald Moore.

who is married to the Irish king Matholwch, is there wounded in battle and instructs his seven followers to cut off his head and take it to the White Hill in London by a specified route. These instructions for decapitation are carried out, and they then proceed with the head by way of Anglesey, where Branwen, who accompanied them, dies and is buried in the famous ' four-square grave on the banks of the Alaw '. Thence, following Bran's instructions, they journey with the head to Harlech, where they hear news that Catuvellaunus is crowned king of England in London, and stay in Harlech seven years at an enchanted feast. At the end of this time they go to Gwales in Pembrokeshire, to a great hall overlooking the sea and with one door towards Cornwall and Aber Henfelen. There they remain eighty years, until they open the door towards the east and carry the head on the last stage of its journey to London, where it is buried ' with the face towards France ' to ward off foreign invasion.[12]

It will be seen that the story of the transportation of that precious relic and palladium, the head of Bran Fendigaid, from Ireland to England bears a singular resemblance to our legend of Stonehenge. In both there is the initial expedition to Ireland, and a battle which results in the acquisition of a venerated object, in both the transportation to a southern English destination and its deposition there as a rallying-point of magic or funerary significance. In the story of Bran the stages of the journey are given in interesting detail ; the last halting-place of the land journey through Wales is significantly described as looking across the Bristol Channel, and the next stage finds the head already in England—a sea-journey is the inevitable link, and the transport of the Presely stones comes immediately to the mind. If we have not once again found an accidental coincidence (and the coincidence of coincidences becomes in itself rather improbable) we seem to have some linking up of three things—the facts of the transportation of the Presely stones to Wiltshire, the Dark Ages tale of a magic talisman brought from Ireland through Pembrokeshire to southern England, and the story of the magic building of Stonehenge as recorded in the least reliable and most suspect chronicler of the Middle Ages. What attitude are we to adopt towards this awkward triad ?

The resemblances between Geoffrey's story and that of Bran surely point to the possibility of his having derived the legend from a Celtic source, either from a manuscript, or, more likely, from an oral tradition in Wales. It does not seem likely that he adapted the actual

[12] *Mabinogion, Everyman's Library*, no. 97, pp. 33–48.

tale of Bran to fit Stonehenge, but both may derive from a common source. Bran's head might even be Stonehenge, and Geoffrey's version preserve a less corrupted story than that in the Mabinogion, or both may be distorted legends of the traffic along those ancient trade routes between Wessex, Wales and Ireland in which the Stonehenge episode takes so spectacular a place.

There is I think some collateral evidence from the *Historia* to suggest that Geoffrey had some knowledge of the Bran or allied legends, in connexion with his stories of Vortigern and of Vortimer. The first, and no more than a possible connexion, relates to the former, whose death, as told by Geoffrey, was by burning in a tower, as prophesied by Merlin (*set prius te infra turrim inclusum comburent*, Bk. VIII, 1). This suggests a possible comparison with the story of the burning of Llassar Llaesgyfnewid and his wife in the Iron House as told by Bran to Matholwch, but I do not insist on a parallel which may be fortuitous. The second point deals with Vortimer, who in the *Historia* commands, on his deathbed, that his body should be placed in a great bronze monument at the port where the Saxons had landed, so that the sight of his tomb would drive the invaders back to their homeland—

> *Iussit piramidem fieri sibi aerseam locarique in portu quo saxones applicare solebant. Corpus uero suum postquam defunctum foret sepeliri desuper ut uiso busto barbari retortis uelis in germaniam redirent. Dicebat enim neminem illorum audere propius accedere si etiam bustum ipsius aspicerent* (Bk. VI, 14).

This is obviously similar in its sense to the burying of the head of Bran, and indeed it is linked with this, and with the twin dragons of Ambrosius related by Nennius, in the medieval Welsh Triad of the Closures and Disclosures of the Island. The Triads are suspect enough sources, and this one is presumably post-Galfridian, but the early authority for the other two items may be significant, and at all events it shows that the similarity in thought between the Bran and the Vortimer episodes had struck the Welsh compiler.

It would be tempting to equate the Vortimer story with an aetiological legend invented to explain the ruins of the Roman monument which stood on the great cruciform foundation at Richborough, but the archaeological evidence shows that this structure, built *c.* A.D. 100, was destroyed about 280 and its materials utilized in building the stone fort on the site.[13] No remains would therefore exist to provide the

[13] *Soc. Antiq. Lond. Research Comm. Reports*: *Richborough* I, 35; II, 3–4; III, 5.

basis for a legend originating in the Middle Ages, and the Romano-British source assumed to have been used by Nennius for the section dealing with Vortigern would hardly include legendary material from such an early date, even if we assume further that Geoffrey also had access to this or a similar source-book.

It is however one thing to assume continuity of legendary oddments from Roman times into the Dark Ages, but quite another to carry a story back into prehistoric times. On the margins of prehistory we can identify such muddled references as that to the Belgic princes in the tale of Branwen itself, and, more accurately and explicitly, the important family relationships within the Catuvellaunian dynasties which are preserved in the early medieval Welsh pedigrees.[14] Sir Cyril Fox has recently taken the matter a stage further, again in the very story of Branwen under discussion, and has pointed out how the Late Bronze Age trade in bronze cauldrons from Ireland to Wales is echoed in the conversation between Bran and Matholwch.[15] This certainly implies, in surviving Welsh literature, a prehistoric stratum as early as the Late Bronze Age or the Early Iron Age,[16] yet such generalized references are something different from the sharply localized and specific account of the building of a particular monument that we find in Geoffrey's story of Stonehenge. In this is implied a continuity more than could exist in casual hearth-side talk and stones that had become fairy-tales. For a legend to have survived in recognizable form from the earlier Bronze Age to the earlier Middle Ages—nearly three thousand years at the most conservative reckoning—it must have been embodied in some set of traditions which were carefully preserved in as nearly as possible their pristine form, transmitted along a channel from which outside influences were excluded. Such traditions, such channels, can surely only be those afforded by a religion and a priesthood.

Evidence for the existence of a certain continuity in religious ideas and ritual elements, usually connected with burials, from the Early Bronze Age at least until the Late Bronze Age, has been latent in the results of the archaeological research of the past few years, but it was left to Mr C. E. Stevens to bring matters to a head by his recent stimulating note on the Iron Age and Roman sacred sites at Frilford in Berkshire, in which he boldly claims a survival of Early Bronze Age cults

[14] ANTIQUITY, 1941, XV, 284.

[15] *Antiquaries Journ.*, 1939, XIX, 372–3.

[16] For Iron Age cauldrons in Ireland see Mahr in *Proc. R. Irish Acad.*, 1934, XLII, Sec. C. 11–29.

into the period of the Roman Occupation of Britain.[17] Briefly, he suggests a dual division of the native cults in the southern provinces of Roman Britain, represented on the one hand by the ' Romano-Celtic ' type of square temple, an introduction from Gaul that he would associate with the Belgae, and on the other, in the non-Belgic regions, a survival of the Early Bronze Age religious conventions bound up in the worship at circular temples of wood or stone or earthen banks (Mr Kendrick's ' Henge Monuments ') which at the Frilford site find expression in such a structure of Iron Age date, itself succeeded by a circular Roman building. Citing the abundant Roman material from such Bronze Age monuments as Stonehenge, Avebury, Arminghall and elsewhere, he argues for a persistence of their ritual employment during the Occupation.

This most attractive thesis is worth developing at somewhat greater length, since it is obviously of first rate importance in our Stonehenge enquiry. The sum of archaeological information suggests that in the Early Bronze Age there existed three main inter-related types of circular ritual structures or temples—an open space delimited by a ditch with one or two opposed causeways (e.g. Gorsey Bigbury); a circle or analogous setting of free-standing stones or wooden posts either by itself (The Sanctuary) or with the enclosing ditch (Arminghall, Arbor Low), and lastly, circular timber structures probably roofed buildings (Woodhenge, The Sanctuary).[18] Though indirectly associated with burials, as for instance the ritually sacrificed infant at Woodhenge, they are not funerary monuments, but during the Middle Bronze Age one sees a religious syncretism at work in which versions of all these structures appear intimately associated with burials. The famous timber monument of Bleasdale in Lancashire, and the post-structures within barrows such as those of South Wales recently excavated by Sir Cyril Fox,[19] or the other examples known from Middle Bronze Age sites from Yorkshire to Dorset, show one side of this tradition, and

[17] *Oxoniensia*, 1940, v, 166–7. The Frilford excavation is described ibid, 1939, iv, 1–70; comment on the post structure in the Iron Age temple by Bersu in *Proc. Prehist. Soc.*, 1940, vi, 90, n. 3.

[18] *Proc. Prehist. Soc.*, 1936, ii, 1–51; 1938, iv, 57; *Arch. Journ.*, 1940, xcvi, 193–222.

[19] *Antiquaries Journ.*, 1941, xxi, 97–127; Antiquity, 1941, xv, 142–61. Sir Cyril Fox, commenting on this, urges the importance of distinguishing ' between constructions based on the *driven stake* and those on the *dug-in post*; between hurdlemakers' and carpenters' technique—they may have different cultural origins '. (*In litt.*, Sept. 1941).

the stone circles or ritual ditches inside barrows equally widely distributed, another; and while no non-sepulchral temple in the 'Henge' tradition is known at present in the Middle Bronze Age, it is improbable that none were built and that worship was confined to the ancient fanes. For in the Late Bronze Age we find the strength of the old tradition asserting itself in such diverse forms and widely distributed examples in both Lowland and Highland Britain as the megalithic horseshoe setting within the Deverel barrow in Dorset,[20] or the double-entrance ditch at the Loanhead of Daviot cemetery in Aberdeenshire,[21] so that the appearance of the Frilford temple in the Iron Age comes as the natural culmination of a long-established native tradition of religious architecture rather than as in any way an innovation. And it appears not merely as a product of a purely religious continuity; the tradition owes its strength to the fact that the temple plan was itself a part of the heritage of the western European circular house complex, which took such firm root in Britain in the Early Bronze Age that it was still powerful enough to survive into the Iron Age in the face of the rectangular house-plan of the newcomers.[22] The Woodbury farmhouse and the Frilford temple are complementary expressions of the Bronze Age architectural tradition in its domestic and its ritual aspects.

Mr Stevens quotes the casual finds of pottery and other objects on the famous Early Bronze Age 'henge' sites as probably indicating a continuance of worship in Roman times. Maumbury Rings at Dorchester received, it must be admitted, scant respect from the conquerors, who turned it into an amphitheatre; but at Stonehenge some structural addition or alteration seems actually to have been contemplated and partly carried out in late Iron Age or Roman times, when the Z and Y holes were dug around the already ruinous sarsen circle to hold stones or posts. The Stonehenge sequence is controversial, and attempts have even been made to claim it in its entirety for the Iron Age:[23] without entering into details here, an Early Bronze Age foundation, followed by a Middle Bronze Age ('Wessex Culture') grandiose rebuilding, and finally the Iron Age work mentioned above seems the most probable sequence, and one that forcibly demonstrates the continuity of the religious traditions behind it. And now, at the dawn of

[20] cf. Hawkes in *Antiquaries Journ.*, 1933, XIII, 434–5.

[21] *Proc. Soc. Antiq. Scot.*, 1936, LXX, 278–303.

[22] I have discussed this more fully in *Arch. Journ.*, 1940, XCVI, 213 ff.

[23] R. H. Cunnington, *Stonehenge and its date*, 1935. But see my review in *Arch. Journ.*, 1935, XCI, 336–9.

the Roman Conquest and of written history, we can no longer escape reference to those elusive figures, obviously by now troubling the reader's mind by their equivocal reputation, the Druids. Mr Stevens avoided mention of the ominous priesthood; but such a body of legendary lore as they possessed, such countless verses as they memorized and taught to initiates, is an essential element in the religious continuity we have shown from the archaeological evidence to have existed, and if there were legends of the building of Stonehenge handed down to literate times it is these inheritors of a cult, acknowledged by themselves to be ancient and perhaps containing recognizable Bronze Age elements,[24] who are most likely to have been the medium of its transmission.

We have no direct evidence of the nature of the Romano-Celtic religion as practised in the native sanctuaries in the west and south of England. An occasional dedication, such as that to Nodens at Lydney (though not in a native type of temple) gives us a glimpse of a native god later to become no less a legendary figure than King Lear,[25] and at Cerne, in Dorset, it seems probable that another rustic deity was assimilated to Hercules, perhaps under the influence of the Commodus cult.[26] There is one entrancing glance, provided by Gildas and tantalizing alike in its brevity and its turgidity, of the gods of the immediately post-Roman period, the effigies of which, grotesque, stiff and savage, and more numerous than the gods of Egypt, he saw standing inside or outside the deserted cities—

> *. . . nec enumerant patriae portenta ipsa diabolica paene numero Aegyptiaca vincentia, quorum nonnulla liniamentis adhuc deformibus intra vel extra deserta moenia solito more rigentia torvis vultibus intuemur—De Excidio*, cap. IV.[27]

[24] As for instance the golden sickle for the cutting of the mistletoe, which Fox has plausibly equated with one of gilded bronze in the Late Bronze Age style. *Proc. Prehist. Soc.*, 1939, V, 242.

[25] J. R. R. Tolkien in *Soc. Ant. Lond. Research Comm. Report*: *Lydney*, 1932, pp. 132–7.

[26] ANTIQUITY, 1938, XII, 323–31.

[27] The sense of this passage has been obscured by Giles' misleading, though 'standard' translation. He quite unwarrantably translates *moenia* as 'temples', and seems to miss the point of *lineamentis deformibus* in taking it to be 'mouldering away', whereas it seems more likely that the reference is to a distorted style of representation (i.e. a 'celtic', non-Roman, artistic convention). A similar translation of this phrase to that of Giles is given by A. W. Wade-Evans in his S.P.C.K. edition of the *De Excidio*, 1938. *Rigentia* was emended by C. W. King to *ringentia*, which would give 'snarling': an attractive reading. (I am indebted to Prof. H. E. Butler for his views on the translation I have adopted).

But he makes no reference to temples, and of these there is no mention until Saxon times when an alien series of religious cults had arrived to confuse the issue still further.

Yet it is perhaps possible that the ancient native cults persisted in many regions little changed, and that some of the *fana idolorum* Pope Gregory in 601 cautioned Mellitus against destroying in England, advising rather their re-consecration,[28] were products of the old Bronze Age tradition. Mr G. M. Young has made the intriguing suggestion that the *antiqua monumenta in locum ubi a ruricolis dicitur aet than holenstypbum* mentioned in the bounds of Bedwyn parish (Wilts.) in 778 were really some form of pagan Saxon timber circle,[29] or an open sacred fenced enclosure such as the *fana idolorum cum septis quibus erant circumdata* ritually profaned by Coifi in Yorkshire[30] and both would be as well explained by ' henges ' in the native Bronze Age tradition as by an intrusive Saxon cult. In the mingling of pagan beliefs and religions in the Dark Ages we see flashes of the prehistoric rites in the gloom—St. Samson surprising the actors in a ritual drama at a menhir in Cornwall[31]; St. Kentigern being surprised by *ingens larvatorum multitudo statura et visu horribilis* engaged in some archaic ceremony,[32] perhaps allied to that terrible disguising as a bull-calf on the Kalends of January against which the Penitentials thunder in vain.[33] In the twelfth century even we find *deus Helith* hinted at as being, not so long previously, worshipped in Dorset.[34] And behind and perhaps

[28] Bede, *Hist. Eccles.* I, xxx. The only possible example of such re-consecration seems to be at Knowlton in Dorset, with a church as early as the 12th c. in a Bronze Age earthen circle (ANTIQUITY, XIII, 152–5). The site of Yspytty Cynfyn in Cardiganshire, often claimed as a church within a stone circle, has been discussed and discarded by Grimes (op. cit. supra, 21).

[29] *Wilts. Arch. Mag.*, 1932, XLV, 525–7.

[30] Bede, op. cit. II, xiii.

[31] The incident is described in the early 7th cent. life of St. Samson of Dol, cap. XLVIII (*Acta Sanctorum* VI (July), 573–91 (Venice 1749), trans. by T. Taylor, S.P.C.K. 1925; cf. Hencken, *Arch. of Cornwall*, 1932, p. 214; Crawford in *Custom is King*, 1936, pp. 195–6).

[32] Joscelyn of Furness' Life of St. Kentigern (late 12th cent.), quoted by Baring-Gould and Fisher, *Lives of the British Saints*, II, 238.

[33] e.g. that of Theodore of Canterbury (late 7th cent.); the practice had previously been denounced by the Council of Auxerre in the 6th cent. (Margaret Murray, *The Witch Cult in Western Europe*, 1921, p. 21).

[34] Walter of Coventry, *Memoriale* (Rolls Series, 1872), I, 60; ANTIQUITY, 1932, VI, 214–6; 1938, XII, 330.

involving all, the cult of the witches, wherein whatever weight we attach to the strictures of Dr Murray's critics, a very considerable element of prehistoric religion must lie. The streams of continuity must have been mixed, crossing and shifting and sometimes dying out completely, but in the early Dark Ages at least a strong element in myth and legend must have endured from prehistoric times, and possibly even a confused religious tradition may have persisted, so that the *princeps sacerdotum idolatriae* who, standing *in tumulo excelso* by the shore at Selsey reviled Wilfrid, emissary of the Roman church,[35] may have had some title to descent from those Druids who seven centuries before by the Menai had cursed the approaching forces of the Roman army. And no less a personage than St. Illtyd came of a family of magicians and prophets, presumably of a pre-christian religion.[36]

To review the forgoing mosaic of suggestions : we have archaeological evidence of the continuity of use of a certain type of ritual structure or temple, with presumably an accompanying tradition of priestcraft and sacred legend, from the Early Bronze Age to the Roman Occupation, and what scraps of information we have do not preclude its even later survival into the pagan Dark Ages along with other elements of prehistoric cults. Such a continuity would provide a possible vehicle for the transmission of legend from an early period into literate times, and the fact that the legend under discussion relates to Stonehenge, a monument with evidence of constructional activity as late as the eve of the Roman period, increases our confidence in the probability of Geoffrey having derived his story from a fragment of Dark Ages legend originating in prehistoric times, and preserved in Welsh popular literature. There remains one point to be considered which may throw a little additional light on the reasons for the story's survival.

The transport of the stones from Ireland is by Geoffrey assigned to the joint efforts of two shadowy figures, Merlin and Aurelius Ambrosius, and this association is worth examining. The personality of Merlin as we have it in the *Historia* is very dissimilar from that in Geoffrey's later work, the *Vita Merlini*, where he is in all essentials the Celtic prophetic madman of the woods who appears as Lailoken in Scottish, Suibhne in Irish and Merddyn in Welsh legend.[37] But in

[35] Eddi, *Vita Wilfridi* (Rolls Series, 1879), cap. XIII.

[36] ' *Eltutus omnium artium philosophiae omnium Britannorum peritissimus erat, genereque magicus sagacissimus, et futorum praescius* '. (*Vita Samsoni*, cap. VII).

[37] Parry op. cit. ; for the Merlin-Ambrosius equation see also the introductory essays to *Merlin* (Early English Text Soc., 1899).

the *Historia* he is not only at one point directly identified or confused with Ambrosius himself (*tunc ait merlinus qui et ambrosius dicebatur* Bk. VI, 9), but his supernatural qualities, apart from the Stonehenge and the Arthurian episodes, seem introduced only on the one hand to reconcile Ambrosius with the Dragon Prophecy attributed to him by Nennius, and on the other to enable Geoffrey to insert his earlier *Vaticinia Merlini* into the text of his new book. He represents in fact merely a separate embodiment of the magical attributes of Ambrosius at which Nennius had hinted.

Ambrosius is however a more substantial figure. His existence is vouched for independently by Gildas as well as by Nennius, both of whom agree in his patrician Roman lineage (typically improved by Geoffrey making him the son of the Emperor Constantine !) and he appears to be a Prince of Wessex, fighting against the Saxons and Vortigern, with Arthur as his *dux bellorum*. Geoffrey follows Nennius quite closely, and even the inserted episode of his coming from Brittany is not sheer invention, but utilizes an early legend known also to Gilla Coemgin, who translated the *Historia Britonum* into Irish in 1072.[38] But the introduction of the Stonehenge story is completely unrepresented in any source, and it remains to be seen whether Geoffrey's connexion of the event and the personage has any reason behind it. He is at pains to stress the Wessex connexions of Ambrosius-Merlin, the latter being found *in natione gewisseorum . . . ad fontes galabes quos fuerat solitus frequentare* (Bk. VIII, 10) and he may merely have associated a Wessex monument and a Wessex hero with no warrant except his own sense of fitness, or the association may have existed in the legendary source he employed. Such a connexion in folk tales may well have been made ; if not the original builder of the first structure at Stonehenge, the chieftain of the Wessex Bronze Age culture who rebuilt the monument in the magnificent form in which it exists today must have been a figure whose renown throughout southern Britain was commensurate with the architectural achievement and the command of labour the monument implies. And what more likely than that Ambrosius should in the Dark Ages acquire the dim legends of his priest-king predecessor in the realm of Wessex, and through his own personality help to ensure a survival of the stories of its ancient stone temple, mingled with his own prowess against the invading Saxons.

If we accept the implications contained in the forgoing argument

[38] *Mon. Germ. Hist., Chronica Minora* III, 171.

we must also accept a literary survival which though meagre and barbaric, would nevertheless be of the same order as that of the Mycenaean elements preserved in Homer. In the story of Stonehenge in Geoffrey of Monmouth we may have the only fragment left to us of a native Bronze Age literature—a literature which would be as natural an outcome of a heroic culture such as the Wessex Bronze Age (or that of Mycenae, with which indeed it traded), as are the gold-hilted daggers of the warriors, but so infinitely more perishable. We may have a story of the builder, and of the building of the great monument to the spiritual and political ascendancy of Bronze Age Wessex, handed down as part of the sacred lore of its priests long enough to ensure its incorporation in the legends accumulating round another Wessex leader, a Roman of the Dark Ages ; then preserved in the myths of the Celtic west and finally entering the body of written record of the Middle Ages among the legendary miscellanea of a romantic medieval ecclesiastic who may have fancied it as a fairy-tale.

Some Food-gathering Implements

A Study in Mesolithic Tradition

by E. Cecil Curwen

COMMUNITIES which depend for their existence wholly or largely on food-gathering (*agriophages*)—hunting, fishing, and the gathering of wild vegetable products—use implements that differ somewhat from those used by food-producing peoples (*trophogens*) who live by agriculture and pastoralism. Actually it is seldom, if ever, possible to draw a hard-and-fast line between the two economies ; we ourselves, for instance, with our highly industrialized food-production, still depend to a very large extent on an equally industrialized form of food-gathering, viz. fishing. This is because we have not yet learnt how to domesticate the herring. Archaeologically, however, the distinction can be made, as is now well known, between the food-gathering economy of the Mesolithic and earlier periods, and the food-producing economy of the Neolithic and later phases.

Here let us recall for the benefit of the general reader that according to present views material civilization, based on agriculture and the domestication of animals, first arose in western Asia and Egypt somewhere about the fifth or sixth millennium B.C., and spread very gradually westwards into Europe, eastwards into Asia, and to a very limited extent southwards into Africa. The effects of this economic revolution reached Britain in the west, and China in the east, almost simultaneously. In each case their arrival was marked by the introduction of agriculture (wheat and barley) and the domestication of certain animals, and the associated culture is defined as Neolithic. Previous to the rise and spread of food-producing cultures all the inhabited world lived by food-gathering, and even after the rise of the new economy the old survived in those areas that were not immediately affected by it, and in some remote parts even to the present day. On the other hand, many communities live by a combination of food-producing and food-gathering ; this may depend on such local factors as climate, geography, vegetation, and the absence of factors facilitating either agriculture or

pastoralism. In this way peoples which cultivate food-plants, but have no flocks or herds, and no pasturage, will depend to a very important degree on hunting and fishing. Such communities may be expected to derive their hunting and fishing equipment more or less directly from their purely food-gathering ancestors.[1]

It is not the writer's purpose to discuss this equipment as a whole, but to draw attention to certain features which appear widely distributed in time and space, and which serve to emphasize the underlying unity of all food-gathering cultures from the Magdalenian and Mesolithic of Europe to the modern Eskimo and South Sea Islander. These features comprise the use of (1) multiple barbs and foreshafts on spears, arrows and harpoons, and (2) composite blades as cutting implements.

Multiple Barbs and Foreshafts

Barbs are backwardly-directed subsidiary points on or near the heads of spears, arrows or harpoons.[2] Similar points that are directed forwards or outwards are not, properly speaking, barbs, and are not therefore under consideration here, except in so far as multiple points may be useful for spearing fish. Otherwise their purpose is to aggravate the wound and to intimidate by their ferocious appearance—advantages more appropriate to savage warfare than to hunting. But the barb proper is essentially a hook, the purpose of which is to enable a hunter to secure a wounded victim and to minimize its chances of escape. Broadly speaking, the number of such barbs on a weapon reflects the degree of anxiety felt by the hunter on this score. If his hunting was little more than a pastime—a temporary diversion from war—a single pair of barbs on his arrowhead sufficed ; this has been characteristic of Europe and Asia ever since food-producing civilization appeared there. If, however, he possessed neither flocks nor herds, and his dinner depended on his hunting game and spearing fish, he took care to multiply the barbs on his spears and arrows so as to ensure the capture of the most lightly wounded victim. The subsequent extraction of the weapon from the wound must have been extraordinarily laborious, as any fisherman will readily believe. In this connexion it is well to remember that a fish-hook is really a barb, and that the little barb at its point is a barb upon a barb. Also, just as in modern civilization fishing

[1] The probability that agriculture may have been ' discovered ' independently in geographically isolated areas, such as America, does not affect the question under consideration here.

[2] See *O.E.D.*, *s.v.*

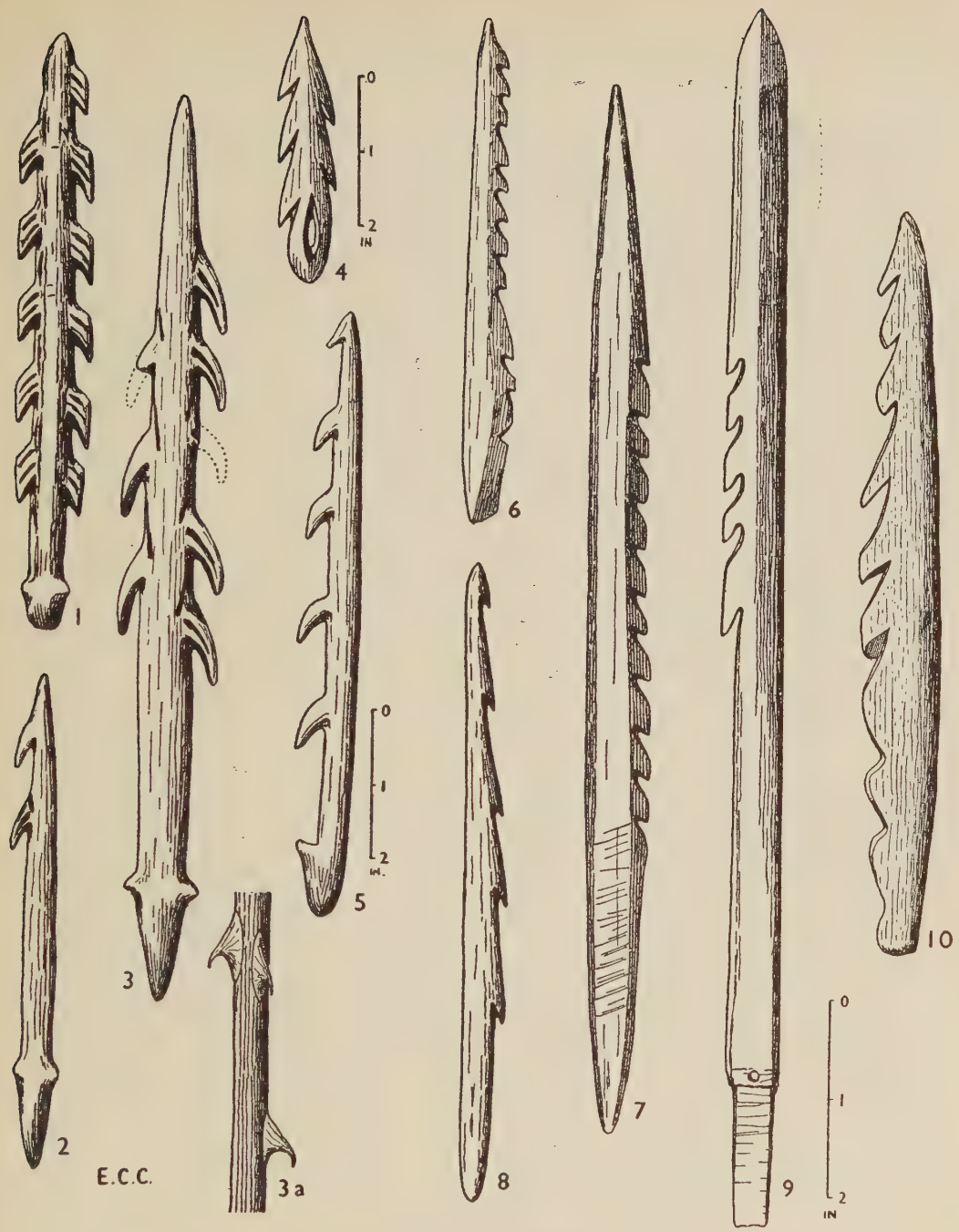
and whaling are the principal surviving forms of food-gathering, so the fish-hook and the whaler's harpoon are the only barbed weapons that we still use. In medieval England iron arrowheads with a single pair of barbs were generally used for hunting; for fighting, however, the arrowheads were normally without barbs, though no doubt there may have been many exceptions to the rule, and there were certain advantages in making it difficult for a wounded foe to extract the arrow and use it again.

Weapons furnished with multiple barbs are conspicuously absent from Europe and Asia in all periods subsequent to the Mesolithic. This is no doubt because the importance of pastoralism has caused hunting to be relegated to a mere sport, and the tradition of multiple barbs was early lost.[3] The earliest multi-barbed weapons from Europe—in fact, the earliest known anywhere—come from the cave-deposits of the Magdalenian in southern France (FIGS.1–3). These consist of long, pointed pieces of antler, with one or, more usually, two rows of barbs carved out of the solid. Though often spoken of as harpoon-heads[4] their form suggests rather that they were *foreshafts* which were firmly fixed to wooden shafts for which they served as elongated 'heads'. The use of foreshafts is characteristic of most hunting peoples down to the present day: the forward end of the shaft of the weapon is made from a harder material than the shaft proper, which is commonly of light wood or bamboo. The foreshaft may be of hard wood, bone, horn, ivory or iron, and its length in proportion to the shaft is very variable. One of its functions is to carry the barbs when present, as well as to form the actual point of the weapon. Sometimes a stone or metal point is added as well (FIG. 11). The foreshaft, like the multiple barbs, is apparently foreign to the food-producing cultures of Europe and Asia, where a short flint or metal head, with or without a single pair of barbs, was attached directly to the wooden shaft.

The curved, hook-like form of the Magdalenian barbs strongly suggests that they may have been modelled on the thorns of the wild

[3] A subsidiary reason for the absence of multiple barbs may lie in the greater strength of the iron barb used in Europe and Asia, as compared with those of wood and bone commonly used in food-gathering communities. These being more fragile needed reduplication.

[4] According to *O.E.D.* the earliest sense of 'harpoon' was 'barbed dart or spear' (17th cent.). Its restriction to the implement with detachable head and thong dates only from the end of that century. The word comes from a root meaning to clutch or secure something.



FIGS. 1–10. MULTIPLE BARBS (BONE)

1–3, Magdalenian; Dordogne, France (casts in Brighton Museum); 3a, Thorns of wild rose; 4, Azilian; Mas d'Azil, France (after Boule); 5, Maglemose; Brandenburg (after Clark); 6, 7, Maglemose; Skipsea and Hornsea (after Clark) 8, Natufian; Mugharet El-Kebarah, Palestine (after Turville-Petre); 9, Eskimo (ivory); 10, Tierra del Fuego (9, 10, Brighton Museum)

The scale shown on right for all except nos. 4 and 5

rose or similar shrub (FIG. 3), the retentive power of which varies with the number of thorns engaged in one's flesh or clothing. (Is there not in Central Africa a ' wait-a-bit ' thorn-bush ?)

The Mesolithic food-gatherers of the Maglemose and Azilian cultures of northern Europe (about 6800–5000 B.C.) carried on the tradition, using a variety of forms of ' barbed bone points '. While the Azilian type had two rows of barbs (FIG. 4), those of the Maglemose folk are almost invariably arranged in a single row down one edge, and the thorn-like variety is relatively uncommon (FIG. 5). In Clark's classification of the Maglemose points, comprising 20 types (excluding those which, having a flint armature, are not comparable), only four types have no barbs at all, and two have single barbs.[5] As a general rule the barbs are produced by serrating the edge of the bone with a series of oblique notches (FIGS. 6, 7). As to the use to which these implements were put, Clark argues that in many cases they were mounted in groups of two or more, with barbs facing inwards, to form leisters—a special form of spear for catching fish or birds, and doubtless the prototype of the trident wielded by Neptune and Britannia (cf. PLATE II). In other cases they appear to have constituted the barbed foreshafts of spears or arrows, while in only a few examples[6] does the shape support the view that they may have formed the detachable heads of harpoons, secured by a thong. The widespread distribution of this last device among modern hunting and fishing communities suggests that its origin must have been very early ; harpoons acting on this principle, but of various forms, have been noted as in use among the Eskimo, the Indians of northwest America, the Ainus of Japan, the Andaman Islanders (for pigs ; FIG. 17), in the Congo (for hippopotamus), and among the natives of Tierra del Fuego.[7] Some of the last-named examples bear an extremely close resemblance to an early Scandinavian type ;[8] this similarity possibly being due to an ultimate common origin via Asia, combined with similar Arctic (or Antarctic) environment.

In remains of the Ertebølle culture that succeeded the Maglemose in Scandinavia barbed bone points are still found, though sparingly.[9] Some may have been harpoon-heads. Offshoots of this culture in

[5] Grahame Clark, *The Mesolithic Settlement of Northern Europe* (1936), 116.

[6] e.g. Clark's types 9, 10, 12A and 15.

[7] *B.M. Ethnographical Collections* (1925), 62, 78, 195, 261–4, 271, 302

[8] ANTIQUITY, 1940, XIV, 134–5.

[9] Clark, op. cit. 150–1, fig. 55, 7, 8 and 9.

southern Sweden survived after the occupation of Denmark by Neolithic food-producers; in fact, it was a very long time before the gradual spread of food-production made its influence felt on the peoples occupying the more northerly parts of Europe and Asia. Food-gathering communities, very partially affected by Neolithic culture, survived at any rate into the Bronze Age over a vast area of Russia and Siberia in a state of culture that Clark describes as 'modified Mesolithic'. The fishing equipment of these peoples included barbed fish-spears and harpoons, and also 'slotted bone points' with both edges inset with flint flakes—a type of implement which we shall consider presently. It is these folk that are now believed to have supplied the earliest immigrants into America, via the Behring Straits.[10]

It is but a step from the Asiatic food-gatherers to the Eskimo of northeast Siberia and the extreme north of America, where we find



FIG. 11. BARBED BONE FORESHAFT OF ARROW, WITH ONE-BARBED COPPER HEAD; MODERN ESKIMO
(Brighton Museum)

scattered fishing communities which still depend entirely on food-gathering for their subsistence. The remarkable parallels between the equipment of the modern Eskimo and that of the north European Mesolithic food-gatherers have frequently been noted. Here we merely need to record the survival of barbed bone and ivory points, nearly identical with those of the Maglemose folk of Denmark—right down to the present day (FIG. 9). Some are used in leisters having two or three prongs (PLATE II, 1, 2), while others form the foreshafts of arrows, with or without the addition of a stone or metal arrowhead. Occasionally the latter may be asymmetrical, with a single barb (FIG. 11)— a variety that recalls our Epimesolithic single-barbed derivatives from the flint *petit tranchet*.

Turning to the opposite extremity of the American continent, we find the present inhabitants of Tierra del Fuego using fishing equipment very similar to that of the Eskimo. The Fuegians live on fish and molluscs, hunting sea-lions and large fish with spears and harpoons.

[10] ANTIQUITY, 1940, XIV, 133.

Among these weapons are barbed bone-points such as that illustrated here (FIG. 10), the resemblance of which to those of the Maglemose in northern Europe needs no emphasis. Clark, in pointing out this relationship,[11] uses it to underline the thesis that the New World was originally peopled by migrants of Mesolithic, or food-gathering, status. We shall not, therefore, be surprised to find comparable hunting-weapons among other food-gathering communities of the present day in South America.

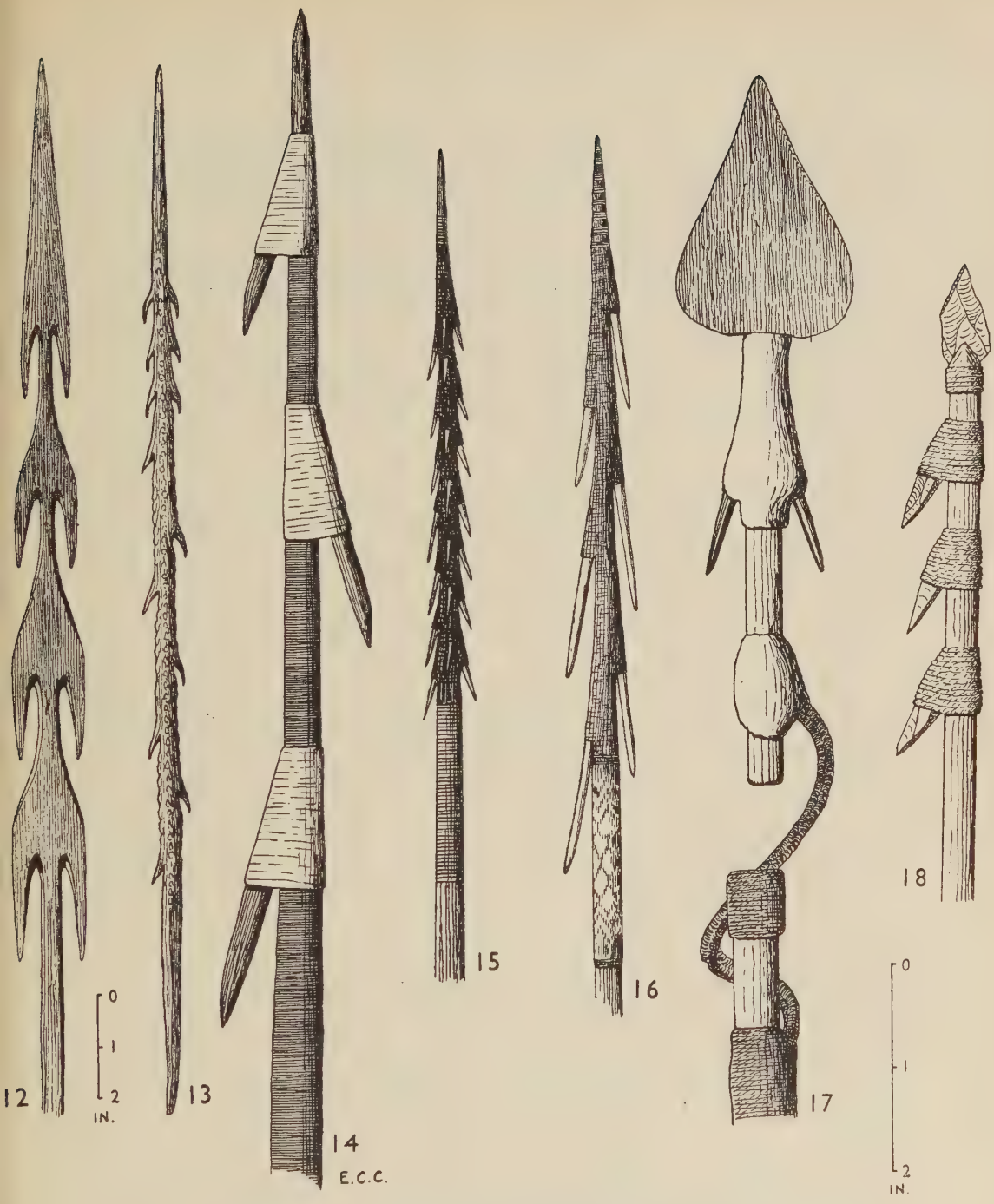
The close similarity between the equipment of the Eskimo and the Fuegians is no doubt partly due to the prevalence of similar climatic conditions involving scarcity of wood and abundance of bone and ivory ; in the South American forests, however, we find comparable weapons made of wood by tribes that are still mainly dependant on hunting and fishing, though they also indulge in some primitive cultivation. Very characteristic are large arrows, five or six feet in length, with foreshaft of hard, black wood forming about one third of the length, and furnished with a variable number of barbs (FIGS. 12, 14, and PLATE I, 5–8). Usually the barbs form part of the foreshaft, the whole being cut out of one piece of wood. They may be arranged in a single row like the Fuegian bone points, or there may be two rows arranged either in pairs or alternately. In another very interesting variety, to which allusion will be made later, the barbs consist of separate spikes of hard wood which are inserted into the foreshaft and firmly bound in position with cord (FIG. 14, and PLATE I, 6).

Let us now return to the Old World. In early Mesolithic deposits in the caves of Palestine (Natufian I) Turville-Petre and Miss Garrod found numerous barbed bone-points closely resembling those of the Maglemose culture (FIG. 8),[12] thus demonstrating that this characteristic weapon of Mesolithic economy was more widely distributed than was at first realized. Barbed points in bone and copper, with not more than three unilateral barbs, occur in prehistoric Egypt but their use faded out as food-production gained ground.[13] Passing eastwards, we know that microliths have been found in India, but so far as the writer knows no barbed bone points have been found there. But in the Indian Ocean the present-day Nicobar islanders spear fish with barbed iron

[11] ibid. 134–5.

[12] F. Turville-Petre, *J.R. Anthr. Inst.* (1932), LXII, 272 and plate XXVIII ; D. A. E. Garrod, *The Stone Age of Mount Carmel* (1937), I, 37 and plate XII, 15–17.

[13] W. M. Flinders Petrie, *Tools and Weapons* (1917), 37 and plates XLIII, 52–58, XLIV, 24–51.



FIGS. 12–18. MULTIPLE BARBS

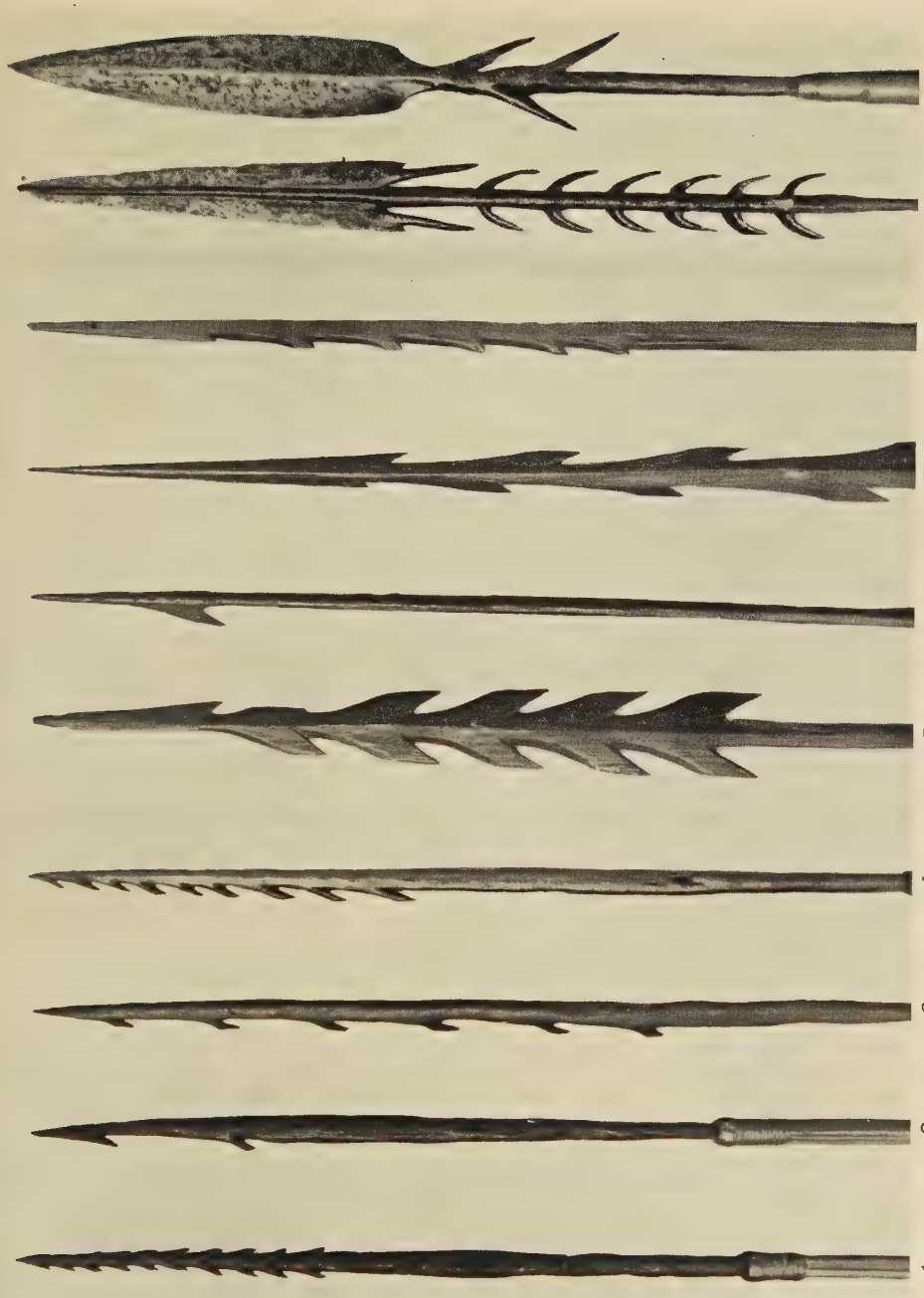
14–18, inserted barbs; 12, large arrow, Amazon (wood); 14, ditto, wooden barbs inserted; 13, iron arrowhead, Congo
15, 16, arrows, Solomon Islands (bone barbs?); 17, arrow-harpoon for pigs, Andaman Islands (blade and barbs iron)
18, microliths mounted as barbs—suggested method
(12–17, Brighton Museum)

The scale shown on right for all except no. 12

leisters which closely resemble those of bone and ivory used by the Eskimos (PLATE II, 3, 4). Continuing southeastwards along the general line which the Polynesian migrations must originally have taken, we find that multi-barbed spears and arrows are peculiarly characteristic of the islanders of Oceania, both Melanesian and Polynesian, and of the aborigines of Australia. Though the South Sea Islanders practice agriculture, they have no flocks or herds, except pigs, and so depend to a very great extent on fishing, for which they use hooks, spears, nets and traps. Some characteristic barbed spears and arrows from the New Hebrides and the Solomon Islands are illustrated in PLATE I, 1–4, and FIGS. 15, 16. Here again the resemblance of the former to the barbed bone points of the European Mesolithic is remarkable, while the inserted bone barbs which characterize the weapons of the Solomon Islands form a noteworthy feature which recalls the example from South America already cited (FIG. 14). We shall return to a further consideration of this type presently. The problem of extracting such a weapon from a wound must be a serious one, recalling the old conundrum about passing an umbrella ' down a chimney up '.

The peoples of Africa vary very much in their cultural status. To a large extent they are agricultural, while those who inhabit the ' park lands ' possess herds of domesticated animals. Other factors which distinguish their status from that of the islanders of the South Pacific are (1) the general use of iron for weapons, and (2) the prevalence of big game. It is possible that the arts of agriculture, pastoralism and iron-working may have spread south from Egypt at a comparatively early date—certainly long before modern European contacts were established—in which case the cultural status of the people as a whole resembles that of Europe and Asia in a primitive and modified form, rather than that of Oceania or South America. It is therefore significant that multiple barbs are not very common on African weapons, though they are by no means absent (PLATE I, 9, 10, and FIG. 13). Foreshafts are also less conspicuous ; the multi-barbed iron arrowhead from the Congo, shown in FIG. 13, is clearly as much an iron foreshaft as the Magdalenian bone points were bone foreshafts. The excessively long shanks, or tangs, of some of the iron spear-heads, with, or usually without, barbs are probably also of the same character. But on the whole the foreshaft is not specially characteristic of Africa. The undecided character of these two features fits in quite well with the primitive food-producing status of the people—not wholly detached from their ' Mesolithic ' traditions.

PLATE I



MULTIPLE BARBS AND FORESHAFTS

1–4, arrows, New Hebrides (hard wood); 5–8, large arrows, British Guiana (hard wood); 9, 10, Central Africa (iron)
(All in Brighton Museum) *Ph. E.C.C.*

facing p. 328



MULTIPLE BARBS

1, 2, bird-spears, Eskimo (ivory); 3, 4, fish-spears, Nicobar Islands (iron)
(Brighton Museum) *Ph.* E.C.C.

THE USE OF MICROLITHS AS INSERTED BARBS

We have seen that among modern primitive peoples which preserve certain Mesolithic traditions multi-barbed weapons of two main kinds are found: (1) those in which the barbs are carved out of the same piece of material as the foreshaft and form one piece with it (let us call this the 'one piece' type for convenience); and (2) those in which separate barbs are inserted into the foreshaft and secured by binding with cords (the 'inserted' type). The latter is a favourite method in the Solomon Islands (FIGS. 15, 16) and adjacent archipelagos, but less favoured elsewhere. It has been noted from the Amazon and British Guiana (FIG. 14 and PLATE I, 6), and single barbs are frequently attached to arrows in this manner in New Guinea. In all these cases the material used is generally bone or wood. In the Andaman Islands the spears and harpoons sometimes have inserted barbs of iron, singly or in pairs (FIG. 17), but not multiple.

Turning back to the Mesolithic of northwest Europe, we naturally enquire whether there is any reason to think that a similar duality of types of barbed weapons may have existed there also. The one-piece type we have already recognized in the 'barbed bone points' so characteristic of the Maglemose culture. During the same period another Mesolithic culture, the Tardenoisian, reached northern Europe from the southwest, bringing with it its most characteristic flint artifact, the 'microlith'. These tiny splinters of flint, an inch or so in length, are characterized by minute and careful secondary chipping which *blunts* a portion of one or both edges. They are found in very large numbers on dwelling-sites of this culture, and sporadically scattered over their hunting-grounds, and the suggestion has been made that some, at least, of these tiny worked flints may have been intended for use as barbs inserted into the shafts of spears and arrows (FIG. 18).

Unfortunately no direct evidence exists in the form of wooden shafts with microliths still fixed *in situ*, preserved in peat-bogs. Very suggestive evidence has, however, been noted by Mr Francis Buckley in the Pennines in Yorkshire. At one place he noticed that microliths of what he calls 'penknife' form are constantly found associated with an elongated or pear-shaped flint 'point'; in some cases a single 'point' and a group of 'penknives' have been found together, made from the same kind of flint, and unaccompanied by any other artifacts. These he interprets as the remains of barbed lances or arrows, the 'point' being the arrowhead, and the 'penknife' microliths forming barbs that were inserted into the shaft near to the point. He also noted

that many ' penknives ' are found broken, the fracture invariably occurring at the ' neck ' or at the tip ; this supports the theory, for it is evident that the projecting part of a delicate flint barb would be very easily snapped off.[14] Even more striking was Mr Buckley's discovery of about 36 triangular microliths lying *in situ* in a straight line extending for about two yards, at a point south of White Hill on the border of Lancashire and Yorkshire. These he excavated carefully in the side of a waterworks sluice, where he found the whole set lying in an undisturbed Mesolithic layer (grey sand) below the peat.[15] This seems an exceptionally long row to represent the barbs of a single lance ; perhaps several lances had been lying in a bundle together. At any rate a strong case has been made for the view that *some* microliths were intended to be used as inserted barbs. It is not suggested that all microliths served this purpose.

Striking confirmation of Mr Buckley's views is presented by the discovery of the skeleton of an aurochs in northwest Zealand, with flint points embedded in two ribs—one bone-wound being healed, the other unhealed and evidently fatal—in addition to which two obliquely blunted microliths and another flake were found in close association, so as to suggest that the beast's death was caused by a lance or arrow that not only had a flint tip but also at least three flint barbs.[16]

The commonest form of microlith is the ' obliquely blunted point ', more or less triangular in form. If these were used as barbs, what was the purpose of the blunting by means of steep secondary chipping ? Three possible reasons suggest themselves : (1) the blunting might result from the trimming of the flake to the desired shape ; (2) those parts of the edge of the microlith that were to come into contact with the cord that bound them into position (if such were used) might be blunted to avoid cutting the cord ; or (3) whereas normally the forward (or outer) edge of a barb is sharp, to facilitate penetration into the flesh of the victim, the rearward (or inner) edge should be blunt to prevent it from cutting out of the wound, and the blunting might have been done for this purpose. On the whole the first reason commends itself as the most probable, but it is possible that the others, especially the last, may also have been correct, at any rate in certain cases.

[14] Francis Buckley, *Microlithic Industry, Marsden, Yorks.* (1918), 11.

[15] From information kindly supplied by the excavator for inclusion in this article. See also Petch, *Ancient Man in the Huddersfield District*.

[16] Clark, op. cit. 89, 203–4.

It is not unlikely that some microliths may have been built up into composite fish-hooks, or into gigs for ' snatching ' fish, similar to those of wood and bone made by the Indians of the northwest coast of America.[17]

Composite Blades

Closely related to the use of flint barbs for spears and arrows is another characteristic piece of Mesolithic equipment—an implement having a cutting edge formed by a row of flint flakes set side by side.

In northern Europe this device was used by the Maglemose folk to give a sharp cutting edge to some of their bone harpoon-heads.[18] FIG. 19 shows one such specimen in which unworked flint flakes—not microliths—have been set obliquely in grooves along both edges of the bone point, thus serving in some measure as flint barbs, and at the same time giving the weapon jagged saw-edges. This specimen appears to form a link between the use of microliths as barbs on the one hand, and the use of a row of sharp flakes as a cutting instrument on the other. In the majority of these ' slotted bone points ' with flint insets the cutting edges of the flints are roughly parallel to the edges of the bone, thus forming nearly continuous cutting edges. As will be seen, both types of composite blade—those with continuous and those with jagged edges—occur elsewhere down to recent times.

It is possible that parallel-sided ' used ' blades, showing traces of wear on one or both edges, may have been mounted in this manner, either singly or as part of a composite knife. No trace of gloss seems to have been found on the edges of such ' used ' blades from this period, so that there is no reason to regard them as parts of sickles. This, of course, agrees with other evidence that the Maglemose folk did not practise agriculture.

In the lower Natufian (Mesolithic) culture-levels of some of the Palestine caves Turville-Petre and Miss Garrod found several examples of this device of a composite flint blade mounted in a groove in a bone handle.[19] Unfortunately, in most of the examples discovered the flint teeth were not found *in situ* in their mounts ; two flints, however, still

[17] *B.M. Ethnog.*, fig. 256.

[18] Clark, op. cit. 116–7, fig. 41 (types 21–25), and plate v, 6, also figs. 55 (6), 61 (8), 62 (1).

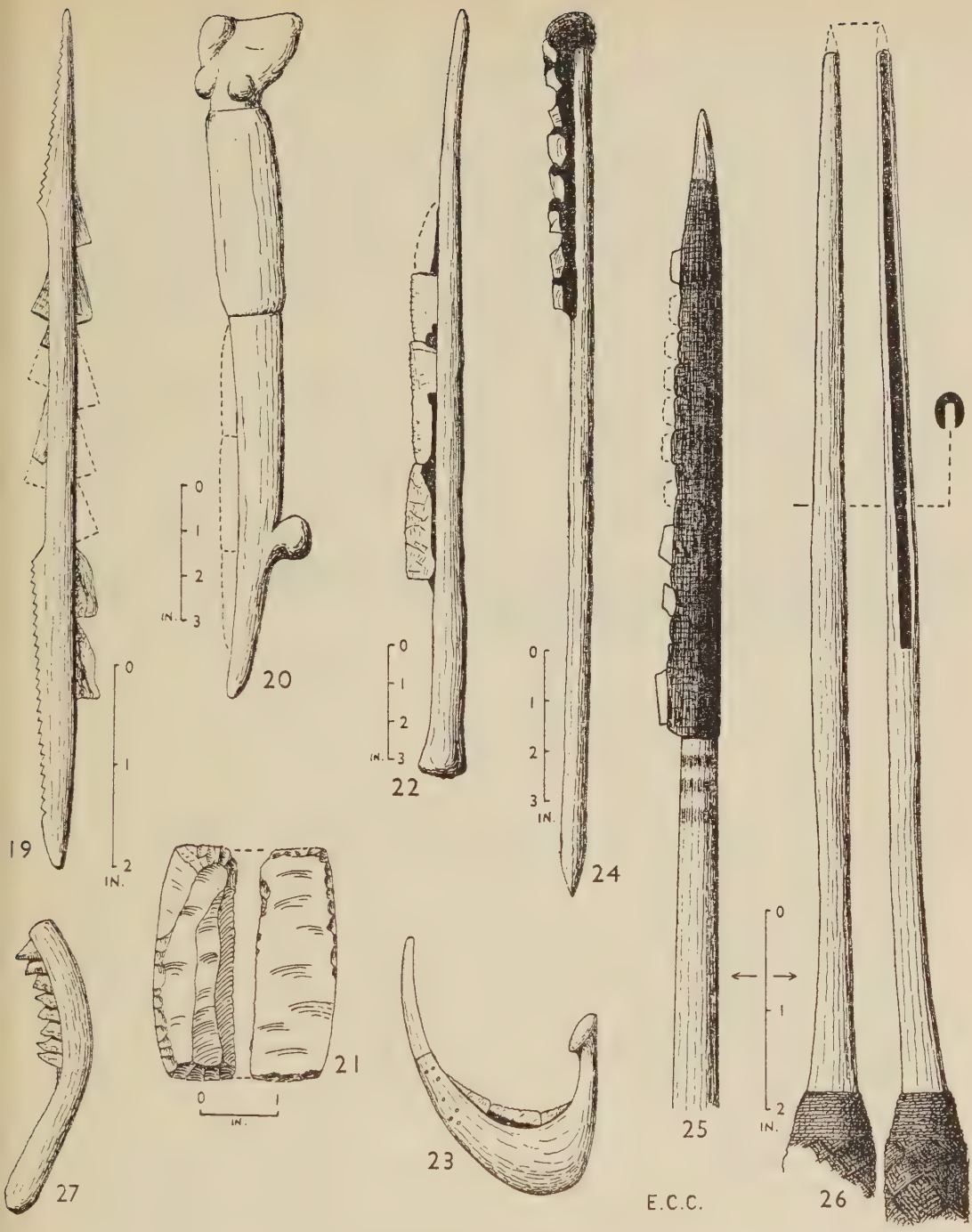
[19] *J. Royal Anthrop. Inst.* (1932), LXII, 261, 265, plate XXII (2), and fig. C (15–21) ; also pp. 271–2, plate XXVII (1), and fig. F (6–11) ; D. A. E. Garrod, *The Stone Age of Mount Carmel* (1937), I, 31, 34, 37–8, plates IX (15–21), XII (6), XIII (1, 3).

in position in a fragment of slotted bone, confirmed the relationship between them. Two complete bone handles, one of which is illustrated in FIG. 20, consist of long bones, the handle end of each of which is surmounted by a carved animal head. Along one edge of the bone, extending from the base of the handle to the tip, is a deep groove in which the flint teeth were originally set end to end. The flints, of which considerable numbers were found loose, average two inches in length (FIG. 21); a majority have their ends squared so as to articulate with one another, or else pointed at one end to form the terminal member of a set. The great majority show signs of wear and a variable degree of gloss or lustre along the cutting edge; this gloss results from prolonged friction against a yielding material which is rich in silica, such as grass or straw, and its presence on the cutting edge of a flint is now recognized as evidence that it formed part of a sickle for cutting corn.[20]

We have generally assumed that the discovery of a sickle indicates that its owner practised agriculture, and the writer has committed himself to this view in the past. But a typical early Mesolithic society practising agriculture at a period far anterior to any other known agricultural community is an anomaly that has puzzled many: nevertheless some are already taking it for granted that these Natufians were tillers of the ground, and this view bids fair to become axiomatic.

If these sickles, complete with corn-gloss, had been found in the settlements of the Maglemose folk of northern Europe, the inference that agriculture was practised by them would have been inevitable. But with the Natufians, who were at least as early in point of date, the case is different, because we have reason to believe that the wild prototypes of wheat and barley grew fairly abundantly in Syria and Palestine, so that this wild grain would have been an obvious and important article of diet among a purely food-gathering people who inhabited that district. The ears of wild wheat would need to be cut off just as much as those of cultivated grain, and what implement is more natural for the purpose than a knife consisting of a row of flint teeth set in a mount of bone or wood—a type we have seen reason to suspect may have existed among other Mesolithic folk as a general purpose knife? Though the evidence for this is only based on the bone harpoons with flint insets described above (Maglemose), yet there is a modern analogy which lends support to the suggested connexion between the two

[20] ANTIQUITY, 1935, IX, 63–5.



FIGS. 19–27. COMPOSITE BLADES

19, slotted bone point with flint insets, Sweden (after Clark); 20, bone handle of flint sickle (Lower Natufian), Palestine (after Turville-Petre), (length, 15 inches); 21, sickle-flint (Lower Natufian), Palestine (after Garrod); 22, neolithic flint sickle, Fayum, Egypt (after Caton-Thompson) (length 20 inches); 23, flint sickle, Egypt (after Petrie); 24, meat knife, West Australia; sharp flakes of china; 25, spear-point with row of sharp flakes of china, West Australia; 26, slotted bone spear-head (insets lost), Philippine Islands (?); 27, composite flint knife o sickle, Spain (after Vayson, following Gougora)

(24–26, Brighton Museum)

The positions of missing flints, etc., are indicated by broken lines

classes of implement. Some of the natives of Western Australia use a meat-knife consisting of a row of flakes of flint, quartz, or china set in gum along one side of a stick (FIG. 24)—a typical composite blade of the kind we have been discussing, the only difference being that the flakes are not set in a groove but applied with mastic. It is particularly interesting to note that they also set a similar row of flakes along one side of the point of a wooden spear (FIG. 25)—an analogy with the Maglemose flint-set harpoons which could hardly be closer.

There is also some further circumstantial evidence suggesting that a row of sharp flakes set in a grooved mount may have been a regular feature among Mesolithic peoples, both for use as knives and for increasing the cutting power of spear-heads. In the Brighton Museum there is exhibited a 'slotted bone point' mounted on a

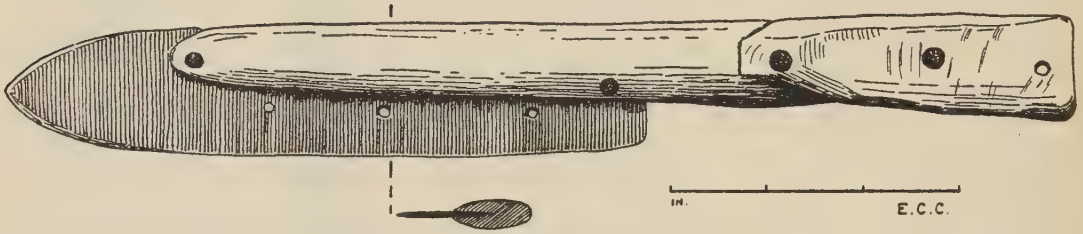


FIG. 28. ESKIMO KNIFE FROM CAPE YORK; IRON BLADE SET IN GROOVE IN IVORY HANDLE
Cf. with FIG. 20 for principle of hafting
(Brighton Museum)

bamboo shaft, said to have come from the Philippine Islands (FIG. 26). Unfortunately the sharp objects that must originally have been inserted in the groove (which is unilateral)—whether flakes of quartz or sharks' teeth—have been lost; but the implement as it stands bears a very close resemblance to the slotted Maglemose points of Denmark. In the same collection is an Eskimo knife consisting of an iron blade let into a groove in the side of an ivory handle (FIG. 28). This curious method of hafting, which resembles that of the Natufian sickle (FIG. 20) and is well suited for mounting a row of flint flakes, is quite unnecessary when the blade consists of a single piece of iron. It looks as if a traditional method of mounting has survived in spite of a change in the material and form of the blade.

While admitting the danger of arguing by analogy, there seem reasonable grounds to believe that the composite flint knife, mounted in bone or wood, may have been a regular feature among the implements used by food-gathering peoples in general, and that it proved to be a

specially serviceable food-gathering implement in districts where corn grew wild.

We have seen that, in general, multi-barbed spears and arrows are not used by people who keep flocks and herds—largely because they are not employed for killing sheep and cattle but for securing wild game that would otherwise escape. The case of the composite flint blade, however, is different, for the same implement was equally suitable for cutting wild or cultivated corn. In general terms, therefore, while the change-over from food-gathering to food-production led to the disuse of multi-barbed weapons, including microliths, the composite flint blade, used as a sickle, survived in some parts for a very long time. In fact it was not finally discarded in Palestine till about 400 B.C. These flint sickles were made in two forms at first—straight (FIGS. 20 and 22) and hook-shaped (FIG. 23)—and after the Natufian period the mounts were always of wood. They have been found in Egypt, Spain and the Alpine lake-dwellings,[21] and the characteristic flint teeth, showing gloss, are common in Palestine[22] and Mesopotamia. While the flints are usually set to form a continuous edge, the jagged setting has been found in Spain (FIG. 27) and the Alps, and was perhaps occasionally used in Egypt. From the Alps northwards, however, the composite blade with continuous edge, arranged in crescentic form in the concavity of a curved wooden mount, gave place to a one-piece flint crescent, similarly mounted. These are the characteristic flint sickles of Scandinavia, and the change-over, which was no doubt due to the advanced skill of the north European flint knappers, seems to have taken place in the Alpine districts, for both kinds—the composite and the single piece—have been found there.[23]

The survival of the composite blade among the modern aborigines of western Australia has already been mentioned. The use of the teeth of sharks or fishes for a similar purpose by the Gilbert Islanders, the Hawaiians and some South American Indians is probably another manifestation of the same Mesolithic tradition, though in this case the resultant edge is inevitably of the jagged variety, peculiarly useful in weapons of war. It may, however, be argued that in the absence of metal or flint there was little else but teeth from which cutting implements could be made.

[21] For drawings see ANTIQUITY, 1930, IV, 181.

[22] ANTIQUITY, 1935, IX, 62.

[23] *Proc. Prehist. Soc* (1938), IV, 29–32.

Conclusions

In studying two probably interrelated characteristics of food-gathering peoples, past and present—the use of multiple barbs and of composite blades—an attempt has been made to suggest the existence of a Mesolithic tradition that has stretched unbroken from the days of the Maglemose folk, or even of the Magdalenians, down to the present time in certain parts of the world. That a Mesolithic tradition should survive for so long need occasion no surprise when one considers that the time that has elapsed since the end of the north European Mesolithic period (about 4000 years) is less than the estimated duration of that period (some 5000 or 6000 years).

In regard to hunting weapons, multi-barbed points disappeared wherever pastoralism took the place of hunting as a source of animal food. In the case of the composite blade, however, this primitive form of general purpose knife, which probably arose from observing the cutting effect of a row of sharp flint barbs on the head of a spear, became even more useful as a sickle after the introduction of agriculture. Instead, therefore, of being discarded it became more generally adopted in countries bordering the Mediterranean, and thereafter underwent a gradual process of development into more advanced forms.

Very many of the implements illustrated here belong to the large and representative ethnographic collection in the Brighton Municipal Museum, and the writer desires to express his indebtedness to Mr C. W. Musgrave, the Director, for allowing them to be illustrated here, and to Miss Patching, assistant Curator, for much trouble taken in producing the desired specimens from showcases and lofty wall-displays.

St. Alban and St. Albans

by Wilhelm Levison

THE name of St. Alban, the *protomartyr Angliae*, occurs for the first time in the Life of Bishop Germanus of Auxerre which Constantius of Lyons wrote about 480. Germanus and his colleague Lupus of Troyes had been sent to Britain in 429 to fight against the Pelagian heretics ; having succeeded, they visited the tomb of St. Alban to offer their thanks for the victory (c. 16, in *Mon. Germ. hist.*, *Scriptores rerum Merovingicarum* VII, 262) : *Conpressa itaque perversitate damnabili eiusque auctoribus confutatis animisque omnium fidei puritate conpositis, sacerdotes beatum Albanum martyrem, acturi Deo per ipsum gratias, petierunt.* The genuine text of the Life does not tell anything more of the martyr, who evidently could be presumed to be known to the reader. The uneventful return of the bishops to Gaul too is attributed to the intercession of the saint (c. 18, p. 265) : *Tranquillam navigationem merita propria et intercessio Albani martyris paraverunt, quietosque antestites suorum desideriis felix carina restituit.*

Bede, in copying several chapters of this source almost verbatim (*Hist. Eccl.*, I, 17–21), added more details on the visit of the tomb (end of c. 18), which were transcribed later in the second, much enlarged Life of St. Germanus. In preparing my edition of the original text, I gave reasons for referring Bede's addition to the ' lost ' *Passio Albani*, which no doubt he had used in a preceding chapter (I, 7) on the saint's martyrdom.[1] My conjectures on Bede's source were right. For at that very time Wilhelm Meyer, professor of Göttingen University and one of the founders of modern philology of medieval Latin, had discovered this source and two older texts of the *Passio Albani*. Their publication was a most important contribution to these studies, though it is sometimes overlooked today.[2]

[1] See my paper ' Bischof Germanus von Auxerre und die Quellen zu seiner Geschichte ' (in *Neues Archiv der Gesellschaft für ältere deutsche Geschichtskunde*, 1903, XXIX, I, 147–50, 162).

[2] ' Die Legende des h. Albanus, des Protomartyr Angliae, in Texten vor Beda ' (*Abhandlungen der Kgl. Gesellschaft der Wissenschaften zu Göttingen, Philol.-hist. Klasse, Neue Folge*, 1904, VIII, 1). Cp. the reviews by J. B. Bury, *English Historical Review*, 1905, XX, 345–47, and H. Delehaye, *Analecta Bollandiana*, 1905, XXIV, 397–99 ; Hugh Williams, *Christianity in early Britain* (Oxford 1912), 106–9 ; H. Delehaye, *Les Passions des martyrs et les genres littéraires* (Brussels 1921), 403–7.

St. Alban was celebrated during the Middle Ages in the Rhineland, as well as in other parts of the Continent. His name was not the origin of place-names on the Rhine, as in France ; but more churches were dedicated to him there than in England. In some cases a local saint of the same name may have been confused with him. The legend of St. Alban at Mainz distinguished the patron-saint from the British martyr. The church stood on the site of an earlier one in a cemetery, where inscriptions recently found have thrown light on the transition from the Roman to the Frankish period. But here also, where the dedication to St. Alban can be traced back to 756—nearly to the death of the Anglo-Saxon St. Boniface—the festal day of the martyr was the 21st of June : this fact suggests the original identity of the local saint with the British martyr, whose day was the 22nd of the same month.[3]

At Cologne a parish church dedicated to the British saint existed (and exists today near the Gürzenich) as a sign of the old relations between this, the largest town of medieval Germany, and England. The church is first mentioned in the 12th century about the time when Henry II granted the earliest privileges to the merchants of Cologne. Another church of the same town, St. Pantaleon's, owned relics of a St. Albinus, which were said to have been brought from Rome by the empress Theophanu about 984 ; but these relics also were ascribed to the martyr of St. Albans. So his name is bound to be familiar to a Rhenish historian.

Local history enhanced my interest in the British saint. The development of Bonn was analogous in some respect to that of St. Albans. A Roman town preceded in both instances the medieval cities, which were situated outside the Roman walls—at Bonn a legionary fortress, *Bonna castra*, with its suburb ; at St. Albans a *municipium*, Verulamium. Both fell into decay and disappeared. A new town arose gradually in the Middle Ages around a martyr's tomb and church on a hill with an old cemetery, at some distance from the destroyed Roman settlement—at Bonn around the ' minster ' of SS. Cassius and Florentius ; at Verulamium on the other side of the river Ver near the abbey church of St. Albans. The comparison might be continued. One might mention the part played by the royal ' borough ' of Kingsbury

[3] So H. Delehaye, ' *In Britannia* dans le Martyrologe Hiéronymien ' (*Proceedings British Academy*, 1931, XVII, 301). The same difference of one day (and the changing of Albanus and Albinus) is found also in the additions of St. Alban's name in several texts of the Martyrologium Hieronymianum (*Acta sanctorum Novembris*, II, 2, pp. 328, 330) ; many calendars give both days accordingly.

giving place to the borough of the abbot of St. Albans, and the manor of the archbishop of Cologne growing into the medieval Bonn ; the new parish churches being ' proprietary churches ' of the two monasteries ; the relations between the citizens and the lords of the towns, abbot and archbishop. There were differences in the development of course—but *ne quid nimis* !

However the question is : has the comparison a real foundation at all ? Has St. Albans grown up near a martyr's church indeed, near a *martyrium* originating in Roman times, or only wrongly regarded as such in the Middle Ages ? No one has doubted the tradition since Bede, who expressly located St. Alban's martyrdom and church *iuxta civitatem Verolamium* (*Hist. Eccl.* I, 7). The earlier continental sources do not name the place ; neither Constantius, nor the poet Venantius Fortunatus in a often quoted verse, nor the authors of the old Passions. Only the earliest British writer, Gildas, who wrote shortly before the middle of the 6th century, gives the name of Verulamium in mentioning the martyrs of Roman times, whose deaths he ascribed by conjecture to the Diocletian persecution (*De excidio Britanniae* c. 10) :

> Qui (Deus) gratuito munere, supradicto ut conicimus persecutionis tempore, ne penitus crassa atrae noctis caligine Britannia obfuscaretur, clarissimos lampades sanctorum martyrum nobis accendit, quorum nunc corporum sepulturae et passionum loca, si non lugubri divortio barbarorum quam plurima ob scelera nostra civibus adimerentur, non minimum intuentium mentibus ardorem divinae caritatis incuterent : sanctum Albanum Verolamiensem, Aaron et Iulium Legionum urbis cives ceterosque utriusque sexus diversis in locis summa magnanimitate in acie Christi perstantes dico.

Wade-Evans recently held the view [4] that Alban did not suffer near Verulamium but, like Aaron and Julius, near the Roman legionary fortress of Caerleon in Monmouthshire, on Mount St. Albans, a hill situated northeast of Caerleon on the eastern side of the river Usk, where a Roman cemetery has left its traces : ' the author does not say that Alban suffered at Verulam, or Julius and Aaron at Caerleon, only that Alban was a man of Verulam, and that the other two were of Caerleon '. But why should Gildas have mentioned the towns, if the *corporum sepulturae et passionum loca* of the martyrs were not to be found there, to use his own words ? Wade-Evans agrees that the martyrdom of Julius and Aaron is connected with Caerleon indeed, and draws the conclusion : ' We should naturally expect to find the " martyrium

[4] A. W. Wade-Evans, ' The Site of St. Alban's Martyrdom ', *Archaeologia Cambrensis*, 1905, 6th series V, 256–59 ; *Welsh Christian Origins* (Oxford 1934), 18 f. ; *Nennius's History of the Britons* (London 1938), 131 (n. 2), 132 (n. 1).

Albani " in the same district '. On the contrary, if the two others suffered near Caerleon, one must expect from Gildas' words the same in the case of Albanus and Verulamium. I shall not dwell on all the arguments of Wade-Evans. He bases his reasoning upon Gildas alone, instead of upon the old Passions, on one of which Gildas depended in repeating, from memory I think, a part of its contents. The name of the river, the waters of which Alban crosses before his death, is not given in the Passions ; Gildas wrongly calls it the Thames (c. 11). This instance proves that he cannot have seen Verulamium and its river Ver, the small brook which separates the Roman town from St. Albans ; nor could he have inserted the name of the Thames, if he had known Caerleon and the river Usk and believed that Alban also suffered there. Nor does Gildas speak of a military centre, a fortress like Caerleon, as the place of the martyrdom.

There was a chapel dedicated to the martyr on Mount St. Albans, as the names of the hill and of a piece of land ' called the chapel yard ' suggest even today ; the church is mentioned in 1495 (Jos. A. Bradney, *A History of Monmouthshire* (1932), IV, ii, 305), but it might have been of comparatively late origin, from a time when the fame of the martyr had spread and had reached Monmouthshire. This can be seen from documents which mention the church of SS. Julius and Aaron, the other British martyrs of Roman age who are known from Gildas. That a church in or near Caerleon was dedicated to their memory might be presumed from his words, but it is attested the first time by a charter in the Book of Llandaff.[5] It has the heading *De Merthir* (=*martyrio*) *Iún* (read *Iulii*) *et Aron* and tells the end of a struggle between three sons of Beli and the men of Bishop Nud of Llandaff. The object of the contest was *totum territorium sanctorum martirum Iulii et Aron*, which was given back by the adversaries to the church of Llandaff. A description of the boundaries of this ' territory ' in Welsh is added ; here it is sufficient to state that they began and ended on the river Usk, in accordance with Gildas' mention of Caerleon. The charter can be dated about 870 ; the first of the lay witnesses are Mouric, king of Gwent, who died in 873, and his sons Brochvail and Fernvail, who some

[5] *The Text of the Book of Llan Dâv* ed. J. Gw. Evans and J. Rhys (Oxford 1893), 225 f. (translation of the Welsh part p. 377 ; cp. Bradney, loc. cit. 294, 302). A few churches in Brittany were dedicated to St. Aaron, rather the martyr of Caerleon than an obscure hermit of St. Malo, in the opinion of J. Loth, *Les noms des saints bretons* (Paris 1910), 7 (cp. 147) and of F. Duine, ' Mémento des sources hagiographiques de l'histoire de Bretagne I, (*Mémoires de la Société archéologique d'Ille-et-Vilaine*, 1918, XLVI, 380 f., off-print 138 f.)

years later recognized the supremacy of Alfred the Great together with king Hywel ap Rhys of Glywysing, who witnessed several other charters of the same bishop Nud. A territory belonging to two saints must have been connected with one church dedicated to both.

More than two centuries pass before the church is mentioned again. The advowson, we might say the proprietary rights of it, had come to the Welsh lords of Caerleon, who were succeeded after the Norman Conquest by Robert of Chandos. In or shortly before 1113 he gave the church of Goldcliff to the famous monastery of Le Bec in Normandy for the foundation of a priory; the church was situated on the coast eastwards from the mouth of the Usk. He bestowed on it other property, as well as churches in his 'defence' of which he held the advowson; he mentions first *ecclesiam sanctae Trinitatis iuxta Karliun* and *ecclesiam Iulii et Aron.*[6] The church of the Holy Trinity is now the church of the hamlet of Christchurch, on the eastern side of the Usk between Newport and Caerleon-ultra-pontem; it 'stands on an eminence and is a prominent landmark for miles'.[7] Down the river, west of Christchurch, is the farmhouse of St. Julian's, once the residence of a branch of the Herbert family and, by his first wife, of Edward Lord Herbert of Cherbury, the philosopher. The place has been identified with our St. Julius, whose name was changed to Julianus in the Welsh genealogies of the tenth century in Harleian MS. 3859,[8] though there existed English churches dedicated to saints of the real name of Julianus. Perhaps archaeologists may be able to find evidence of a church dating at least from the ninth century. Both churches, St. Trinity and SS. Julius and Aaron, are mentioned in the same way in two confirmations of the endowment of Goldcliff priory; one of *c.* 1154–58 by Morgan ap Owen (died 1158) who had brought back the lordship of Caerleon into Welsh hands, and by his brother Iorwerd; the other of 1204 by archbishop Hubert Walter of Canterbury.

In the meantime a third patron—St. Alban—had been associated with Julius and Aaron. In December 1142 young Henry Plantagenet was brought for the first time to England to give strength by his presence to the claims of his adherents against king Stephen; he came soon

[6] *Monasticon Anglicanum*, 1830, VI, 2, 1022. The charter is known from an inspeximus and confirmation of Edward I of 1290; see Calendar Charter Rolls, II, 358, no. 1. The year 1113 is mentioned in the confirmation of Henry I preserved by another inspeximus of 1290, ib. 361, no. 1. The first roll is repeated in an inspeximus of Edward II of 1320, ib. III, 434 f.

[7] *Journal British Archaeological Association*, N.S. XXXV, 15; cp. Bradney IV, ii, 309 ff.

[8] E. Faral, *La Légende arthurienne* (Paris 1929), III, 54.

afterwards to Bristol—not far away from Goldcliff—to be educated there, and returned thence in 1146 to France. The monks of Goldcliff thought it opportune to have a confirmation of their property issued in the name of the son of the ' empress ' ; so ' Henricus dux Normannorum et comes Andegavorum ', as the young pretender of ten years of age was styled here in anticipation, confirmed at Bristol in 1143 the donations of Robert of Chandos and of the other benefactors of Goldcliff.[9] St. Trinity is mentioned as usual, but the other church gets the name : *ecclesiam sanctorum Iulii et Aaron atque Albani.* This triplet occurs again in 1201 in a confirmation by king John. The patronage of St. Alban apparently is accessory : it is missing in the earliest charters which mention the church, nor is it always added afterwards.

Julius and Aaron, of whom nothing was known but their martyrdom in Roman times, were mentioned by Gildas, Bede and others only in connexion with Alban, whose fame was increasing in the 12th century through his monastery. The monks of Goldcliff might have wanted to add relics of the more famous *protomartyr Angliae* to the bones of the two old patrons of the church, who alone connected their priory with ancient Christian times. We do not know when and where, between 1113 and 1143, they got the relics, which no doubt gave substance to the patron's name. Relics reputed to be those of St. Alban were found in many places in the 12th century, and caused controversies between St. Albans and Ely which lasted for centuries. There might have been many opportunities of acquiring relics of the martyr ; but we may guess with some reason at some special occasion.

[9] Charter Rolls, II, 362, no. 2 ; L. Delisle and E. Berger, ' Recueil des actes de Henri II roi d'Angleterre et duc de Normandie ' (in *Chartes et diplômes relatifs à l'histoire de France*) (1916), I, 53, no. 48*. The title given to Henry II corresponds to the use of 1151–53 only ; therefore Delisle, *Introduction*, 130 and 511 (no. 46*) and Berger, loc. cit. I, 53 attributed the charter to 1153 (Delisle 511 to 1153–54). Berger recognized that one of the witnesses, Count Robert of Gloucester, died in 1147, and conjectured *Roberto* might be a blunder of the transcriber of the charter for *Willelmo*, Robert's son and successor (pp. 53, 55). But another witness, the famous Count Miles of Hereford, died before, on 24 December 1143, to be succeeded by his son Roger ; the charter has to be dated from this very year. When Henry was brought to England the first time, the use could not yet have been fixed enough to call him only ' ducis Normannorum et comitis Andegavorum filius '; the mention also of the Welshmen and of Wales, besides French- and Englishmen, Normandy and England, in the ' inscription ' of the charter is unusual (Delisle, *Introd.* 209, n. 1 ; but see I, 182, no. 78). Another possibility is that Henry's title was deformed by the transcriber of the charter. Delisle, *Introd.* 130 rightly had no doubt as to ' l'authenticité et la sincérité ' of the document, which seems to be the first known charter issued in the name of Henry II.

Goldcliff's connexion with Le Bec persisted in spite of all geographical and political difficulties till the 15th century, when the priory was given first to Tewkesbury and finally to Eton.[10] St. Albans also had relations with the Norman house. Abbot Paul (1077–93), was a kinsman of archbishop Lanfranc of Canterbury, whose stay at Le Bec is well known ; St. Albans had been committed to his care. The memory of the connexion was so strong that, according to the strange story of Matthew Paris, in his Life of Offa II, most of the first monks of the latter's foundation came *ex domo Becci*—nearly 250 years before Le Bec existed ! Abbot Paul had begun the erection of a new church at St. Albans, which was consecrated in the presence of Henry I in 1115 (28 December). Abbot Geoffrey (1119–46) added a more precious shrine of the martyr ; the old one was opened and the body transferred on the 1st day of August, 1129. So, in the interval between 1113 and 1143, this translation might have given the chance of parting with smaller relics of the saint, and might explain the appearance of his name with Julius and Aaron near the Usk. Anyhow, whenever the church got relics of the protomartyr, a chapel which gave the name to Mount St. Albans owed its patron-saint, as we may presume without scruple, to the old church, in the same way as a chapel of St. Aaron, which is said to have existed at Penrhôs north of Caerleon, no doubt derived its dedication from the same source.

I abstain from dwelling on the fictions of Geoffrey of Monmouth, who copied Gildas' words on the three martyrs, but doubled the common church of the two citizens of Caerleon, attributing to the town a church of St. Julius with a convent of nuns, and a church of St. Aaron with a chapter of canons. In ascribing to this church the third metropolitan see of Great Britain, he was opposing the aspirations of St. Davids. The influence of his historical romance was immense ; his statements on the two churches also were repeated by Giraldus Cambrensis and others. But the real church of the two martyrs disappeared completely.[11] Archaeologists have lately revived the Roman

[10] Rose Graham, ' Four Alien Priories in Monmouthshire ', *British Arch. Assoc.*, N.S. XXXV, 104 f., 108 f., 112 f., 115 ff., 118 f. ; cp. Bradney, loc. cit. IV, 2, 272 ff.

[11] Even the day of the two martyrs was forgotten. In later times their names were ascribed to the first of July : one of them had the name of the month, the other that of the high-priest Aaron, whose death was believed to have occurred on this day (cp. *Acta sanctorum Julii* I, 9 ff., 17, *Novembris* II, 2, p. 345 ; Baring-Gould and Fisher, *The Lives of the British Saints*, I, 103). In Brittany Aaron's festival day was 22 June, the day of St. Alban ; see Duine, loc. cit.

fortress of Caerleon : let us hope that a chance may occur to unearth the ' merthir ' nearby which nothing but the spade could bring to light. But it would be lost labour to search there for the *martyrium* of St. Alban too. It can be ascribed without hesitation to Verulamium and St. Albans, as far as certainty or probability is at all applicable to such traditions.

We can trace the cult of St. Alban back to the first part of the fifth century, when St. Germanus visited his tomb in 429. How many generations of Christians had already paid their devotion to his memory ? The authority of Bede established the ' tradition ' that he, like Aaron and Julius, suffered in the Diocletian persecution. He depended on Gildas for this belief, but overlooked the fact that the British author had attributed these martyrdoms to the last and greatest persecution only by conjecture (c. 10, above p. 339) : ' supradicto *ut conicimus* persecutionis tempore ' are Gildas' words, as Mommsen's critical edition has placed beyond dispute, instead of the evident miscorrection of a single manuscript *ut cognoscimus*. This dating was in contradiction to the express statement not only of Eusebius but also of Lactantius, and of some Donatists in a letter of 313 that in the part of the Roman Empire governed by Constantius Chlorus, Christians had not to pay for their faith with their lives, but, according to Lactantius, only churches were destroyed ; no martyrdom in the countries under his authority is ascribed to his time by any reliable witness. The contradiction disappeared by the emendation of Gildas' text ; the more since the publication of W. Meyer mentioned above showed that the *Passio Albani* used by Gildas and Bede gave no date for the persecution, so that Bede did indeed rely on Gildas' mere conjecture. As this fact is sometimes forgotten it may be worth while to insist on the meaning of the texts brought to light by Meyer.

His third Passio has so far only been found in a Paris MS. (no. 11748), which came from Saint-Maur-les-Fossés and was written in France in the tenth century or a little earlier ; it is the text used by Bede and perhaps by Gildas too (I shall call it, with Meyer, ' P '). His first Passio is preserved in a Turin MS. (D.V.3), also of French origin ; it was written at the end of the eighth century in the so-called *ab*-type of the script of Corbie (=T). Besides these two recensions of the Passio which survived each in a single French collection of Lives of Saints, there exists a small third text which is transmitted in an English MS. of the 12th century also (London, Gray's Inn, no. 3), but no doubt

was derived like other texts of the Codex from a continental copy; for the continental tradition of this piece is larger and much older (Autun, *Séminaire* 34, 9–10th century; British Museum, Addit. MS. 11880, 9th century; Einsiedeln 248, 12th century). This short Passion (E) is an epitome of T—the first part being very abbreviated—which was expanded again into P, as Meyer has shown; it is the connecting link between both, as is manifest by words of earlier texts which were copied by the author of T, and of which some were repeated in E and fewer, by way of E, passed into P.

For T, especially its first part, is to some degree a cento composed of phrases of earlier sources, which Meyer has brought to light in his notes; his proofs can be enlarged from the same and other texts. This procedure, which is not unusual in hagiographical writings, might be made even more evident in a future edition by printing the borrowed words in different types. The short preface is taken from the *Passio Xysti, Felicissimi ac Agapiti* of Roman origin, in its separate form (BHL. 7809, 7811 f.)[12] There are phrases which are common to T and the *Passio Eleutherii* of Rome (ib. 2451, cp. 2450), as Meyer has seen; but a part of them and others are also found in the *Passio Quintini*, the martyr of Saint-Quentin (ib. 6999)—I will only mention the admonition of the prefect c. 11: '*consenti mihi et sacrifica magnis diis Iovi et Apollini*', cp. T c. 8 (Meyer, p. 50): '*immola et sacrifica diis nostris sacratissimis, Iovi et Apollini sacrificia offer*'.

Meyer compared also phrases recurring in the *Passio Symphoriani* of Autun of the fifth century (ib. 7967 ff), which became known to Celtic scholars by the discovery of old Gaulish words in the manuscript tradition of the text studied by Meyer; but here another text might be the real source. In an introductory chapter of T (c. 2) the persecution of the Christians in Gaul is mentioned, especially in *urbi Lugdunensium et Agennensium*. Meyer doubted the last name and thought of the more famous Vienne, and its Christian community which occurs with that of Lyons in the time of persecution. But the substitution of *Agennensium* for *Viennensium* is improbable from the palaeographical aspect as well as from the historical view. Why should a copyist have substituted the less known Agen for Vienne? The author, I suggest, rather had an interest in Agen, because one of his hagiographical sources

[12] I refer as to lives of saints to the numbers of the excellent *B(ibliotheca) H(agiographica) L(atina)* of the Bollandists, Brussels, 1898–1901, with *Supplementi editio altera*, 1911, and do not mention editions themselves.

referred to this town of southwestern Gaul. There are two celebrated martyrs of Agen—Fides and Caprasius ; their Passions originally were separate but later were united. Now the first *Passio Caprasii* (BHL. 1558) is mainly a plagiarism borrowed from the *Passio Symphoriani* mentioned above. The Caprasius-texts accessible to me do not contain two of the three Symphorianus-sentences discovered by Meyer (p. 81) ; but no critical edition exists of any of these Passions, and some parallels with T can be found even in the combined Passion of Fides and Caprasius (ib. 2929 ff). So the suggestion may be permitted that an older recension of this Passion, not yet accounted for, was the medium between the texts on Symphorian and Alban.

However, Quintinus, Symphorianus, and Caprasius are martyrs of Gaul, and to the same country belongs the last and most important source detected by Meyer, the *Passio Irenaei* (BHL. 4457 b, c, which is introductory only), *Andochii*, *Thyrsi*, *Felicis* (424), *Benigni* (1153), the martyrs of Lyons, Saulieu and Dijon. It was composed as one piece of work and as such is preserved in a Farfa MS. of about 900 ; but the parts relating to martyrs of single places afterwards were copied separately, when ' Passionalia ' were arranged after the sequence of the calendar (Meyer 62 ff). This complex was composed in Burgundy in the time of Bishop Gregory of Langres (506-7 to 539–40), and its influence was large, though the historical value of these legends is very small. The author of T used all parts of this source. The festal days of Alban (22 June) and Irenaeus (28 June) were separated by a short interval ; so the reading of a Passion of the latter might have been obvious to a man writing for the glory of Alban. He had read not only legends—some phrases may be referred to the influence of Statius (Meyer 56, 26 ' floribus picturatus ' ; cp. *Theb.* VI, 58), Vegetius (54, 22 ' divinitatis instinctu '; cp. *Epit. rei milit.* II, 21),[13] Hieronymus (48, 30 ' antiquitas tradidit '; cp. *Epist.* 18, 6, 7, ed. Hilberg I, p. 82) and Rufinus (48, 4 ' in ultimis partibus mundi '; cp. *Hist. Eccl.* IV, 7, 14, ed. Mommsen, p. 313).

His little work has no place in the rank of *Acta martyrum sincera* ; it is a legendary tale, of which the essential contents (*via* P) are known to many readers from Bede. The trial, the debate between Alban and the judge, the river making way for the saint rushing to martyrdom, the well springing from the soil to supply him with water, the executioner

[13] The famous inscription of Constantine's triumphal arch ('instinctu divinitatis') can be left aside.

converted by his example and suffering as his ' colleague ', and the other executioner, whose eyes fell to the ground together with the martyr's head : these are frequent elements of such *légendes épiques*, though the author remarkably abstained from the favourite theme of enlarging St. Alban's tortures. From the end of the martyr he passes at once to the visit of Germanus at his tomb, where the bishop deposited relics of all apostles and several martyrs,[14] taking with him some dust from the place where Alban had suffered—*reliques représentatifs*, such as were used in the West in early times, when it was considered that the repose of the saint's body should not be disturbed. These details suggest, as Meyer has seen, that T was composed at Auxerre ; a church of St. Alban existed there in the 9th century, which, according to tradition, had been erected by Germanus himself,[15] and this tradition may be right in respect of the twofold mention of Alban in Constantius' Life of Germanus (above p. 337).

The description of the place of martyrdom outside the walls of the Roman town (T c. 16) is so accurate, that it seems to go back to early tradition.[16] Only the rapidity of the river (c. 14) does not correspond with reality, and is a legendary exaggeration originating in the story of the *torrens* which made way for the martyr, while the bridge was crowded by people accompanying him on his last walk. There is a bridged ford near St. Michael's church in the ' marshy valley ' of the Ver, which ' carried the road from Verulamium to Colchester in Roman times ', today also leading from the ruins of the *forum*, and of a gate of Verulamium to the church of St. Alban on the other side of the river ; this fact explains the origin of the legend. The presence of a well near the church no doubt resulted in the incorporation of the legend of the well (c. 17) ; the name of Holywell Street (today Holywell Hill) keeps its memory alive.

Text T is copied from a Merovingian MS. with the irregular orthography and grammar of the times and, consequently, is full of blunders ; the editor had to correct many misreadings, leaving the emendation of

[14] Constantius mentions that Germanus always had with him a *capsula* with relics of saints, *Vita Germani*, c. 4, 15, 43 (pp. 253, 262, 281).

[15] Heiric, *Vita Germani* IV, 28 ff. (ed. Traube, *Mon. Germ. hist., Poetae Lat.* III, 476) and *Miracula Germani* I, 17 (*Acta sanctorum Julii* VII, 258) ; *Gesta pontificum Autissiodorensium* c. 7 (ed. L. M. Duru, *Bibliothèque historique de l'Yonne* I (Auxerre-Paris 1850), 318.

[16] *Victoria Hist. Hertfordshire* (1914), IV, 285 f. ; R. E. M. and T. V. Wheeler, *Verulamium*, 1936 (*Reports of the Research Committee of the Soc. of Antiq.*, no. XI), 32 f.

others to a successor.[17] But the little work had not even got the finishing touch. T seems to be derived from a first draft, to which some details had not yet been added, when E was excerpted (perhaps by the author himself thinking of another account ?). Alban's conversion by the example of the cleric to whom he gave shelter in the persecution, is to be guessed only in T (c. 4); the execution of Alban himself is to be read between the lines but not told (c. 18). P added some words on the conversion; Bede with his sense of symmetry, using P filled the other gap also by a short sentence.

But we can see the legend in the very making even more. There are in T a few sentences which are out of place where they are transmitted, obviously marginal notes which were admitted into the text by a transcriber in wrong places (Meyer 32 f); there are no vestiges of these notes in E or P. Alban is said to have appeared to Germanus on the sea, when the bishop was sailing to Britain, *referente sancto Germano* (c. 21, p. 60), and when he was sleeping after the matins in the *basilica* of St. Alban, the martyr again appeared and revealed the circumstances of his sufferings (ib.): *dum se sopori dedisset, sanctus Albanus adfuit et que acta fuerant de persecutionibus eius, revelata tradidit utque titulis scripta retenerentur publice declaravit.* Miracles also worked in the presence of Germanus and effecting the conversion of pagans are a new addition (c. 22). These insertions possibly might be notes made by the author himself for an expansion of his work, or they might be additions of an early reader who had a similar intention. In any case, they confirm Auxerre as the home of the author.

One of his sources, the Irenaeus-cycle, was composed some years after 506 (Meyer 64); but he wrote before the middle of the sixth century. For not only Bede used in 731 P (derived from T through E), but one of the texts had already been read by Gildas who wrote shortly before 547 and, relating Alban's end freely and probably from memory,[18] he exaggerated the miracle of the river making way for the martyr. He wrongly added the name of the Thames (above p. 340), and instead of

[17] I suggest c. 2 (Meyer p. 46, 16) ' ecclesiam christianam [nu]per fundatam ' for ' eccl. christiano per fundata '; c. 15 (p. 56, 9) ' horae spatio orationem posuit ' for ' oraspatii oratione posuit ', see e.g. Rufinus, *Hist. Eccl.*, IV, 15, 14 (ed. Mommsen p. 341) on Polycarp: ' unius horae ab eis spatio orationis gratia inpetrato ', or *Passio Bonifatii Tarsensis* c. 9 (BHL. 1413): ' Transacto autem quasi unius horae spatio ', etc.

[18] I cannot agree with J. B. Bury, loc. cit. 346, who considered the possibility that Gildas had no written source but simply gave the legend, as it was orally current at Verulamium. But would he have spoken of the Thames in this case ? Probably he had read the text, but it was not before him when he was writing.

the people crowding the bridge and blocking the road, he told of a thousand men following the saint through the river like the Jews marching through the Jordan. The first *Passio Albani* therefore can be dated about 515–40.

We do not know which recension Gildas had read. It gave no date of the persecution in which Alban suffered (above p. 344). That is the case with E and P, which begin 'Tempore persecutionis sanctus Albanus . . .' and call the persecuting magistrate simply *iudex* (P twice *princeps* also). On the other hand, T ascribes the martyrdom to the emperor (Septimius) Severus, whose persecution in Gaul he knew from the *Passio Irenaei* (c. 6, Meyer p. 75), of which he borrowed so much; accordingly in T not *iudex*, but *Caesar* persecutes Alban, debates with him and gives the sentence of death. But a text of T seems to have existed before, where the author, in spite of all other borrowings from the Irenaeus-cycle, had not yet admitted the name of the emperor Severus. It is not very probable that this name should have been dropped in the epitome for the uncertain 'Tempore persecutionis', if it was to be found in the source, and that *iudex* was substituted for *Caesar*. There are traces of an earlier form without the name too; for in T also (c. 14, p. 54) is one mention of the 'judge': *Denique iudex sine obsequio* (that is, without his officials) *in civitate substiterat*, and after the conversion and martyrdom of the first executioner we are told (c. 20, p. 58): *Tunc impiissimus Caesar* (EP: *iudex*) *exanimis, tanta novitate perculsus, iniussu etiam principum iubet de persecutione cessare, referens gaudere potius religionem caede sanctorum, per quam eandem opinabantur aboleri*—the emperor acting without an order of the *principes*, and making an official *relatio* to them? That presupposes a text, where a magistrate, *iudex*, was actor in the drama, not the emperor himself. Meyer (p. 21) sought the explanation of *iniussu principum* from the age of the author, in whose time the sons of Clovis had divided the governance of the Frankish kingdom; the emperor should, in the opinion of the writer, have asked his colleages first. But this interpretation is unsuitable. The Merovingian kings, though representing in theory the same *regnum Francorum*, were independent of each other. There is no explanation but in the view that the present text is a concoction:[19] it was not an emperor who acted originally, but a *iudex*, the name of Severus and the title of Caesar being introduced afterwards by the author from a source from which he had drawn before;

[19] So also *Vict. Hist. Hertfordshire*, IV, 283, n. 13.

but in correcting he overlooked a few passages which conflicted with his new procedure. That a persecution occurred in the time of (Septimius) Severus, he might have known not only from the unreliable *Passio Irenaei*, but also from Rufinus's translation of Eusebius; that the emperor in his last years came to Britain himself and died there at York (211)—he could read e.g. in the familiar Breviary of Eutropius or in the Histories of Orosius. Anyhow, we cannot trust his statement of the time of the martyrdom which was originally absent from his text, and have to acquiesce in our ignorance of the age of the British martyrs. In all probability they did not suffer in the Diocletian persecution; the 'tradition' created by a guess of Gildas and accepted by Bede, is built on sand. It is possible, as has been conjectured, that they gave their lives for Christ in the persecution of Decius or Valerianus about the middle of the third century. *Ignoramus* and *ignorabimus*: it is very improbable that even the archaeologists will be fortunate enough to contribute to a solution of this problem of early British church-history.

The tradition of Auxerre described the tomb and church of St. Alban as existing in 429; Gildas hinted at Verulamium as connected with the martyr's memory. Bede was not relying on Gildas alone in speaking more expressly of the same place as the site of Alban's martyrdom, and of the church of 'wonderful work' which was erected there in honour of the martyr, when peace had been restored to Christianity; it existed in the time of Bede (731), who related the cure of the sick, and frequent miracles operated there *usque ad hanc diem* (*Hist. Eccl.* I, 7). The end of the eighth century brought a new phase in the history of the place. Though we have to rely on late sources only, the tradition may be right, that Offa of Mercia erected a new church, added a monastery of Benedictine monks and made an 'elevation' of the sacred bones which were put into a shrine in 793. The history of the foundation is obscured 'not so much by lack of information as by the difficulty of the task of disentangling fact from fiction'.[20] The legend of the foundation was written down in the early 13th century,[20A] but some

[20] L. F. Rushbrook Williams, *History of the Abbey of St. Albans* (1917), p. 3.

[20A] Roger of Wendover, *Chronica* (586, 793) ed. Coxe, I, 91 and 251–59; Matthew Paris, *Chronica Majora* ed. Luard, I, 252, 356–61; Paris' *Vita Offae secundi* ed. Wats, *Matthaei Paris Historia Major* (London 1684), 982 ff. (on its relation to the Chronicles cp. L. Theopold, *Kritische Untersuchungen über die Quellen zur angelsächsischen Geschichte*

Note continued on page 351

features can be traced a century back. According to the tradition of St. Albans the old church had been destroyed by the pagan Saxons, and the site of the martyr's tomb was forgotten, until it was miraculously revealed to Offa and the *inventio* of the relics in accordance with the revelation was performed on 1 August 793. This legend of the forgotten tomb and the miraculous invention is in open conflict with Bede's statement, nor can the opinion be held that the knowledge of the tomb was lost, between 731 and 793, in an age when all England was Christian, superficially at least, and the cult of saints was a predominant feature of religion.

Not an invention, but a translation, had to be made of course, when the body of the martyr was removed the first time from the earth and put in a shrine. Cotton MS. Domitian A. VIII of the Saxon Chronicle of about 1100 (F) has as the annal for 793 : ' *Translatio* sancti Albani ';[21] an entry made in the later 12th century at Canterbury into Winchester Annals (Cotton MS. Nero A. VIII) changed the first word : ' *Inventio* sancti Albani martyris '.[22] Two treatises of the 13th century on St. Alban's invention distinguish between the day of the invention by Offa, 1 August, and the day of the translation of the relics into the new church after some years, 13 August (*Illustr.* pl. 32, 42) ; this might have been the real day of the earliest translation. The first of August occurs in an agreement of about 1050, when an annual payment was fixed to be made to the monks of St. Albans *ad festivitatem sancti Petri ad*

Note continued from page 350

des 8. *Jahrhunderts*, Diss. of Göttingen 1872, 112 ff.) ; Chronica Johannis Wallingford ed. Gale, *Historiae Britannicae*, etc. *Scriptores* XV, 1691, 530 ; the double *Inventio S. Albani* (BHL. 215–6 ; Hardy, *Descriptive Catalogue* I, 1, p. 16, no. 28–29) in Dublin MS. Trinity College E. 1. 40 (cp. P. Grosjean, *Anal. Bolland.*, 1928, XLVI, 96 f.), fol. 50 v–62 v, 66 v–68 v, of which, besides fragments published by Ussher (Usserius), larger parts are accessible by the reproductions of W. R. L. Lowe and E. F. Jacob (with a preface by M. R. James), *Illustrations to the Life of St. Alban* (Oxford, 1924), with the drawings referred to Matthew Paris (quoted *Illustr.*) ; some forged charters. On the problems of the historiography of St. Albans I will only mention Claude Jenkins, *The Monastic Chronicler and the Early School of St. Albans* (1922) ; F. M. Powicke, ' Notes on the Compilation of the Chronica Majora of Matthew Paris ' (*Modern Philology*, 1941, XXXVIII, 305–17), and—for the later Middle Ages—V. H. Galbraith, *St. Albans Chronicle* 1406–20 (Oxford 1937), pp. XXVII ff.

[21] Petrie, *Monumenta historica Britannica* I, 1848, 338, n. 24 ; cp. Ch. Plummer, *Two of the Saxon Chronicles parallel* I, p. 56, n. 1 ; II, p. 62 and II.

[22] F. Liebermann, *Ungedruckte Anglo-Normannische Geschichtsquellen* (Strassburg 1879), 63.

Vincula;[23] a festivity of the martyr is not mentioned on that occasion. On 1 August Peter's pence had to be paid every year,[24] which was claimed by the abbey itself from the monastic lands; its introduction, in which Offa seems to have had a share indeed, was connected in the legend with St. Alban's invention. The idea of this festivity might have been promoted by the neighbourhood of the *Inventio Stephani protomartyris* on 3 August.[25] The festivity is mentioned first about the year 1115, when the new church was consecrated (above p. 343): Bishop Robert of Lincoln (1094–1123) in the time of abbot Richard (1097–1119) granted an indulgence to all penitents coming *ad praedictam festivitatem* to St. Albans (*Gesta abbatum S. Albani* ed. Riley, I, 92). Abbot Geoffrey (1119–46) seems to have been a special promoter of the legend. Its first elements are to be found in the works of William of Malmesbury in the time of this abbot, who gave to the monastery a vestment with embroidery representing the invention (*Gesta abb.*, I, 94). When in 1129 he transferred the relics of St. Alban from the old shrine into a more precious one, he chose as the day of translation the occasion of the 'Invention'-festivity, but shifted its future celebration to the next day, the 2nd of August, because the 1st was occupied too much by the feast of St. Peter in Fetters. Therefore the *Inventio* is marked on the 2nd in the St. Albans calendars, the oldest of which are written in the time of abbot Geoffrey.[26] That the 1st of August, not the 2nd, had been the festal day till 1129, is confirmed by the fact that the same calendars which note the Invention on the 2nd, mark the octave of the martyr on the 8th, not on the 9th, of August, and a late one, besides the Invention of the 2nd, adds 'De sancto Albano' on the 1st, in accordance with the legend of the invention by Offa.

In any case, there are sufficient reasons to doubt the story of the destroyed church, the forgotten tomb and its revelation in 793: it can be neglected by the historian as well as by the archaeologist. The foundation of the monastery, in accordance with the tradition, may have effected the erection of a new church and the 'elevation' of the

[23] Charter referring to abbot Leofstan and Tova, widow of Wihtric, ed. Kemble, *Codex diplom. aevi Saxon.*, IV, 284, no. 950; Luard, loc. cit. VI, 29, no. 12.

[24] F. Liebermann, *Die Gesetze der Angelsachsen* II, 2, p. 610, § 15 (cp. II, 1, p. 173).

[25] Stephen is compared to St. Alban in Dublin MS. fol. 61 f., *Illustr.*, pl. 50 f.

[26] Ad. Goldschmidt, *Der Albanipsalter in Hildesheim* (Berlin, 1895), 28; Fr. Wormald, 'English Benedictine Kalendars after A.D. 1100, I, 41 (*Henry Bradshaw Society*, LXXVII, 1939); J. Dalton, *Ordinale Exon.*, II, 421 (ib. XXXVIII, 1909); *Annales Henrici* IV, 1406 (in *Johannis de Trokelowe Annales*, ed. Riley, 420).

relics and their ' translation ' into a shrine ; but there seems to have been, here at least, no gap between Roman and Saxon times, and though the direct legacy from the Roman province to England may be ' negligible ',[27] the cult of St. Alban was one of the survivals.

The legend of the martyr himself so far was the same which Bede had told following the third *Passio*. There are other texts which are copied more or less verbatim from Bede (BHL. 206–10, etc.). The author of the Old English Martyrology (*c.* 850), as well as Aelfric for his homily on the saint, had no other source. The *historia*, which abbot Aelfric (bishop of Ramsbury from 990, archbishop of Canterbury 995–1005) is said to have composed for liturgical singing, and the tapestry, on which the suffering of St. Alban could be seen, given to the abbey by abbot Richard (1097–1119), no doubt depended likewise on Bede.

But a few years only had passed since the translation of 1129, when a new epoch in the history of the legend was initiated. The author of the first Passion had told that Alban, though pagan, had given shelter to a cleric fleeing from the persecution, and had presented himself to the persecutors, putting on the great-coat (*caracalla*) of his guest, of whom no further mention is made. We are not informed whether he escaped death by Alban's sacrifice, or if he too became a victim of the persecution. Nor did E, P, Gildas or Bede give an explanation ; Gildas expressly speaks of mutual changing of clothes (*vestibus*), and P and Bede tell in a few words how the example of the *clericus* caused Alban's conversion to the Christian faith. Geoffrey of Monmouth copied the words of Gildas ; but adding *suum* he changed the confessor of the faith into the confessor of Alban (corresponding to Bede's *magistro suo*). He added more : he gave him a name, Amphibalus, which was absolutely unknown until then. It is controversial whether he was induced by a wrong variant reading in Gildas, or by a misunderstood gloss to Bede's *ipsius habitu, id est caracalla*. One may doubt whether *amphibalum* (originally *amphimallum*) was a more usual word than *caracalla*, and was appropriate for explaining it ; Geoffrey in reading of *vestibus* or *caracalla* of the confessor might have got the idea of the name immediately. He invented not only the name—the work of this romancer is full of inventions—he ' canonized ' too Alban's protégé, attributing to Winchester a church of St. Amphibalus, where prince

[27] R. Lennard, ' From Roman Britain to Anglo-Saxon England ' (in *Wirtschaft und Kultur. Festschrift zum 70. Geburtstag von Alfons Dopsch* (Baden near Vienna 1938), 72 f.

Constans was to become a monk and a son of Modred was murdered before the altar by king Constantine, according to this historical novel. So a new saint came to light in 1136–38.

The invention had consequences at St. Albans itself after some time. Abbot Simon (1167–83) added to the shrine of 1129 a precious exterior feretory, where the life and death of St. Alban were represented in gold and silver (*Gesta abb.* I, 189). The abbey had incurred heavy debts (ib. 183, 193); anyone who knows the medieval misuse of pious belief and offering, will not be surprised to learn that just at this time the generosity of the devotees was stimulated by the discovery of the history and, what was more, of the relics of St. Amphibalus. 'The possession of an attractive collection of relics and wonder-working images was as economically important to a monastery as is a good display of ruins to a modern tourist resort'.[28]

At first a monk, William, composed a new extensive Passion of St. Alban (and Amphibalus !) by command of abbot Simon (BHL. 213). The author emphasizes that his work is not a new fabrication but a translation from an old English book, except the name of Amphibalus, which he inserted from the history of 'Gaufridus Arturus', that is Geoffrey of Monmouth. He even gives a preface and an epilogue of the alleged predecessor, who pretends to write in the times of the pagans and to conceal his name for fear of his life. But this is forgery; if an English text has existed at all, it cannot have been anything but a first draft as base of the 'translation'.[29] The author used Bede's chapter on St. Alban, but this short text was changed into a large piece of work by clumsy inventions after the usual pattern. Alban is not a lone hero in the forefront, but Amphibalus gets a great share of the glory of a martyr. We are informed of Alban's noble Roman origin; the story of the conversion is spun out at length; the tortures and the end of Alban,[30] of Amphibalus and of the converted soldier who declined

[28] O. G. S. Crawford, *Western Seaways* (in *Custom is King: essays presented to R. R. Marett*, London 1936, 182, n. 2).

[29] About the middle of the 13th century the old English text had been changed in the tales of the monks into a history of St. Alban written in the *idioma antiquorum Britonum* or *antiquo Anglico vel Britannico idiomate*, which was found in the ruins of Verulamium in the time of abbot Eadmar in the 10th century. It was deciphered by a learned priest Unwona, and turned at once to dust, when its contents had been made known; see *Gesta abb.* I, 26 f. cp. R. M. Wilson, 'Some lost Saints' Lives in Old and Middle English' (*Modern Language Review* (1941), XXXVI, 161 ff).

[30] *in loco qui vulgi consuetudine Holmhorst vocabatur* (§ 17), which may be added to the place-names of Hertfordshire.

to be executioner, are described with cruel details. Amphibalus, according to William, escaped by Alban's help to Wales, preaching to Welshmen, Picts and *cives*; a thousand men accompanied him to the West, of whom 999 were slain by the persecutors. Amphibalus was brought back to Verulamium for his martyrdom, many were converted again, and another thousand were put to death. The origin of this immense number of martyrs can be recognized with probability. The Martyrologium Hieronymianum on 22 June (*Acta sanct. Nov.* II, 2, p. 330) mentioned martyrs of Antiochia—Julian, two others and 879 more—whose names God alone knows. The apostle Jacobus Alphaei and the martyr Rufinus of Alexandria follow next, but then the large number of unknown (Antiochian) martyrs is repeated, one of the many fatuous repetitions by which the very archetype of the Martyrology was deformed. This time the number (which is more or less disfigured in some copies) is 889, by the addition of an X. Now in the second recension of the Martyrology (BW), which took place in the 7th century in Gaul, the name of the British martyr was entered immediately after Rufinus of Alexandria: *In Brittania Albini martyris.* The 889 martyrs who had joined Rufinus by the mistake of repetition, were made companions of 'Albinus' in turn by the queer insertion of his name;[31] only a C and another X had to be added to arrive at 999. This might be the origin of the large number of martyrs in William's Passion; the other thousand men may be an invention without any base, or may be the thousand men who, according to Gildas (above p. 349), followed Alban through the river.

There is no need to dwell on all the fables of the 'translated' author, who pretends to have made careful inquiries at Verulamium (§ 2), and to have written down his knowledge before starting for Rome to be christened there, and to offer his book to the Romans for examination (§ 47). He prophesies the coming of Christian missionaries to Britain who will learn from his writing God's great deeds worked through the martyrs, and will propagate them. He is conscious of extolling the glory of St. Alban, whose merits will be praised all over the world, *si quid mea carmina possunt* (§ 47): everybody knowing Vergil (*Aen.* IX, 446)—there were many in the 'Renaissance of the twelfth century'—might have compared at once Alban and Amphibalus to the friendship of Nisus and Euryalus immortalized by the poet. But the author meant not only literary glorification of his heroes; one

[31] cp. Delehaye, '*In Britannia*' *dans le Martyrologe Hiéronymien* (loc. cit. 300 f.)

of his objects was the ' invention ' of relics of Amphibalus, the whereabouts of which were hidden as yet, as had been his name a generation before. Amphibalus's terrible sufferings have ended, the pagans are engaged in quarrel and uproar (§ 44): *quidam fidelis in Christo clam beati martyris corpus auferens sub terram occuluit diligenter, quandoque ut confidimus divino munere in lucem proferendum.* Was it William's aim to prepare the discovery by laying the literary foundations ?

Archaeologists now might help to make alive the written word. There must have been some knowledge of two ancient mounds, *tumuli*, containing human remains, at Redbourn four miles northwest of St. Albans on Watling Street. What is told of this cemetery, shows, as G. Baldwin Brown has seen,[32] that a burial-place of the pagan period of the Anglo-Saxons existed there: modern methods might perhaps find more of it.* Visions seen by Robert, a citizen of St. Albans, are said to have suggested searching the place; miracles followed as soon as the digging had begun; after some days of work, when the brethren were sitting in the refectory listening to a recital of William's Passio, a message came that the bodies of Amphibalus and of three companions and of six others nearby had been discovered, on the 25th June 1177 (not 1178). They were brought to the abbey, a solemn procession with St. Alban's shrine moved to meet them; very soon a precious shrine of St. Amphibalus found its place in the abbey-church near that of St. Alban, and contributed to make St. Albans ' the most brilliant ' of the English monasteries in the later Middle Ages.[33]

Monastic and popular imagination discovered more. In the marshy grounds near the Ver there existed a little church of St. Germanus (now St. Germain's farm), which was said to have been built in the time of abbot Eadfrid (about 900 ?) for a hermitage. The name of the patron-saint caused the story that Germanus had stayed in a house at

[32] *The Arts in Early England*, 1915, III, 120 f.; cp. Baring-Gould and Fisher, loc. cit. I, 153. On Redbourn see M. Reddan, *Vict. Hist. Hertfordshire*, IV, 416 ff.; cp. II, 364 ff.

* It seems most probable that the human remains found at Redbourn consisted of secondary burials in a pre-existing (Roman or earlier) barrow, as at Dunstable; and I have already marked the site as such on the Ordnance Survey ' Dark Ages ' map. Primary Saxon barrows were normally either very small—in which case they occurred not singly or in pairs but in large groups set close together, as in many Kentish cemeteries—or else they covered primary cremations. The fact that Redbourn stands right on Watling Street makes it probable that the barrow was of the Roman period.—O.G.S.C.

[33] V. H. Galbraith, *The Abbey of St. Albans from* 1300 *to the Dissolution of the Monasteries* (Oxford 1911), p. 3.

this place, when he visited the martyr's tomb in 429 and took not only dust from it (above p. 347) but raised the very body of the saint (*Gesta abb.* I, 20 f.). The monks knew also where Alban's relics were preserved after the 'invention' of 793, until the abbey-church of Offa was finished: in the middle of the 13th century the chapel of 'Sancta Syon' was said to have given them shelter in the meantime. Where had the 999 companions of Amphibalus suffered in returning with him from Wales? A popular etymology of the name of Lichfield gave to this town the fame of having seen the massacre of the crowd. In accordance with medieval custom[34] William's Passio in prose was adapted to distichs by his friend Radulf of Dunstable (BHL. 212). About 1250 a French poem of similar contents was composed by Matthew Paris, where the converted executioner also got his name, Heraclius (*Aracle*).[35] But the legend of the saint himself was growing. William had spoken of Alban's noble Roman descent, but had not told his former life—fiction had to fill this gap. The 'primacy' (*primatus*) of Albion under the Caesar was ascribed to him; now he got a military career.[36] The poem of John Lydgate on SS. Albon and Amphibale composed in 1439 for abbot John Whethamstede, and the *Tractatus de nobilitate, vita et martyrio SS. Albani et Amphibali e Gallico in Latinum translatus* signify the culmination of this development, which need not be followed here, nor its expression in art.

But in the meantime the monks of St. Albans by chance had touched the very heart of their original church; here again archaeological research perhaps might be able to supply the deficiencies of our knowledge. The eastern part of the church had to be pulled down for

[34] E. R. Curtius, 'Dichtung und Rhetorik im Mittelalter' (*Deutsche Vierteljahrsschrift für Literaturwissenschaft und Geistesgeschichte*, 1938, XVI, 435 ff).

[35] ed. R. Atkinson, *Vie de seint Auban*, 1876; partly *Illustr.* pl. 1–30. The Latin form Heraclius is given by John of Tynemouth, *Nova Legenda Anglie*, ed. C. Horstman (Oxford 1901), I, 33.

[36] *Inventio Albani* in Dublin MS. fol. 52–52 v, *Illustr.* pl. 32, 33; cp. Usserius, *Britannicarum Ecclesiarum Antiquitates*, Dublin, 1639, 981 (London, 1687, 83; *Works of James Ussher*, ed. Elrington, V, 190). The same 982 (83; 191) prints a text calling Alban *magistrum militum totius Britanniae*, which is said to be taken from *libro, quem Dominus Iohannes Mansel specialis Domini Regis clericus et consiliarius attulit de Hispania*; a part of the text relies on Geoffrey of Monmouth. The reference seems to depend on Dublin MS. fol. 22, cp. Atkinson p. VII, XII. On John Mansel, the famous counsellor of Henry III, who died in 1265, see Kingsford, *Dict. of Nat. Biogr.*, XXXVI, 84 ff. He was sent to Castile in 1253 and 1254, and came to St. Albans with the queen in October 1259. The French poem v. 21 (Atkinson, p. 3) calls Alban *de la cité un haut maréschal.*

restoration and extension some years after the middle of the 13th century. In demolishing the walls and in testing the strength of the foundations, the workmen discovered, near the old feretory under the pavement on the 2nd day of January (*in octavis S. Stephani*) 1257 a ' mausoleum ' with a tomb of stone. It was thought to be the first place of rest of St. Alban ; a leaden inscription suggested it, probably put there when the relics were removed to a shrine.[37] The interpretation may have been right. A martyr's tomb in old times was regarded with respect ; its situation gave origin to the first *martyrium*, as well as direction to enlargement and rebuilding of the church, and when the custom of elevations and translations in the West also prevailed, there is some probability that the shrine with the patron-saint's relics was put in or above an altar at or near the same place, where the sacred bones were buried before under the pavement.

Now I resume the comparison with Bonn which I made in the beginning (p. 338). The present crypt of Bonn minster which is situated under the chancel, was built in the 11th and 12th centuries ; but excavations of 1928–30 disclosed under it a Roman and Frankish cemetery, a Carolingian church and the original *martyrium* of the late fourth century. The foundations contained a large number of Roman inscriptions and sculptures, for the most part pagan dedication-stones of the 2nd and 3rd centuries. Roman Verulamium also is known to have been a quarry to St. Albans. At Bonn the *tumba* of the martyrs Cassius and Florentius was the ' heart ' of the building through all its vicissitudes and changes even of the axis. Discoveries of the same kind were made in the northern part of the Rhineland at Xanten, where the fine church of St. Victor also has its place on a Roman cemetery outside the walls of the *Colonia Traiana*. By excavations of 1933 under the pavement of the Gothic chancel remains of older buildings were brought to light, which comprised a church of late Roman times and even the undisturbed bones of the martyrs. The question is whether the ' mausoleum ' found in 1257 under the chancel of St. Alban's church is pointing the way to vestiges of Roman Christianity too. The inhabitants of medieval St. Albans had before their eyes the ancient ruins which they exploited. A writer of the abbey applied the celebrated verses of Hildebert of Tours on Rome to his own town : *O Verolamium, civitatis antique ruina pocius quam edificium, felicior*

[37] See Usserius 986 (88 ; 202) from Dublin MS. fol. 70 v, cp. ib. 980 f. (77 ; 178) ; Matth. Par., *Chron. Maj.*, v, 608 f. ' It seems that there has never been an eastern crypt ' at St. Albans (*Vict. Hist. Hertf.*, II, 484).

hodie in cun(c)tis nacionibus predicaris confracta, quam in deliciosis supellectilibus extiteris integra, que quanti fueris integra, rupta doces.[38] Modern archaeological research has revived ancient Verulamium (Corder, above, 113–24), and Isca-Caerleon. The personalities of the martyrs Alban, Julius and Aaron will never be known. But they were objects of worship already in the fifth (429) and sixth (Gildas) centuries. Let us hope that the possibility exists, and that the opportunity will arise to bring to light some day at least the concrete evidence of this early devotion of a transitional period of British history in the Dark Ages.

[38] *Inventio Albani* in Dublin MS. fol. 55, Usserius 981 (83; 190), *Illustr.*, pl. 38; Hildebert's elegy may have been known to the author from William of Malmesbury's *Gesta regum* IV, 351 (ed. Stubbs II, 403); but it is also found elsewhere.

The Boat of the Dead in the Bronze Age

by L. V. Grinsell

In many parts of the world and at many periods the practice has prevailed of depositing boats, or models or other representations of them, with the dead, either as a means of facilitating his supposed voyage to another world, or as a symbol of his maritime activities during his lifetime.

That the former is generally the correct explanation of the custom there can be no doubt. This is shown by the evidence of the belief in a voyage to a future world, and the customs to which it has given rise, among living primitive peoples in the Pacific Islands and elsewhere, so well collected and presented by the late Sir J. G. Frazer.[1] It is shown also by traditions such as that of our own king Arthur's journey by barge to ' the island valley of Avilion, where falls not hail, or rain, or any snow '.[2] It is shown also by the ancient Greek and Roman custom of placing a coin in the mouth of the dead to pay Charon's fee for ferrying him across the Styx.

This belief may have been partly responsible for the well-known Viking ship-burials, of which those of Oseberg and Gokstad are the best known, but they may also be partly the result of the maritime leanings of the Vikings. The same may also be said of the Anglo-Saxon ship-burials from Sutton Hoo and Snape Common in Suffolk.[3]

The presence of a boat or representation of one buried with the dead does not necessarily prove any belief in a voyage to a next world : it may (like Elpenor's oar and the shepherd's tuft of wool) merely indicate the profession of the deceased.

There is little or no evidence of the boat of the dead before the Bronze Age.

[1] *Garnered Sheaves*, pp. 17, 20 ; *Fear of the Dead*, I, 183–7 ; *Belief in Immortality*, I, 244, 462.

[2] Tennyson, *Passing of Arthur* ; cf. Malory, *Morte d'Arthur*, ed. H. O. Sommer (1891), I, 849.

[3] *British Museum Quarterly*, Dec. 1939 ; Antiquity, March 1940 ; *Antiquaries Journal*, April 1940.

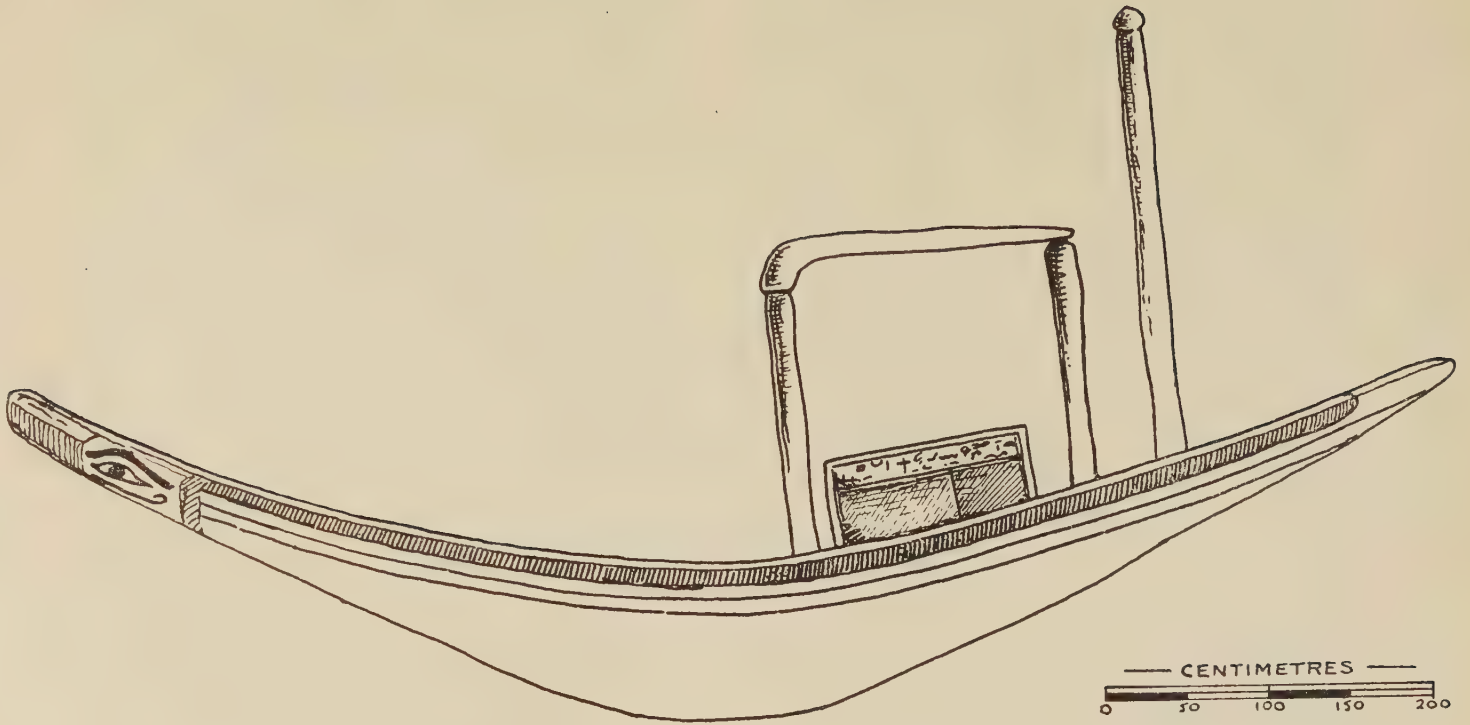


FIG. 1. MODEL OF A BOAT FOR THE DEAD, FROM MEIR, EGYPT
(Reisner, 4851)

Perhaps the earliest record of a boat buried with the dead is that from the grave of A-bar-gi among the predynastic Royal Tombs at Ur of the Chaldees. In this grave were found two model boats, one (badly decayed) of copper, and the other (wonderfully well preserved) of silver, about 2 ins. long.[4]

In Egypt the practice of depositing boats with the dead existed from the 6th Dynasty onwards, and was flourishing *c.* 1600–1200 B.C., to which period most of the other Bronze Age boats of the dead appear to belong. Reisner[5] divided model boats (FIG. 1) deposited with the dead into three classes according to function :—(1) for ordinary use of the dead in the next world ; (2) for funeral use, i.e. to convey the dead to the next world ; (3) solar boats used in the underworld. ' The funeral bark is probably derived directly from one of the types of divine barks of the period in which the funeral bark was first thought of. That period is, so far as can be seen from the reliefs and the dated models, not long previous to the 12th Dynasty. The characteristic mark of the funeral bark is the presence of a mummy on a bier, or a mummiform figure on a throne, or a coffin '.[6] The solar barks were often placed in tombs, and originated from the idea of the sun making a journey by boat beneath the earth from west to east ready to rise the next morning.

Writing of the *Book of the Dead*, Sir E. Wallis Budge[7] states that ' the recital of chap. 98 provided the deceased with a boat in which to sail over the northern heavens, and a ladder by which to ascend to heaven. Chapters 99–103 gave him the use of the magical boat, the mystic name of each part of which he was obliged to know, and helped him to enter the boat of Ra and to be with Hathor. Chapters 130 and 131 secured the use of the Boats of Sunrise and Sunset, and chapter 132 enabled him to return to earth and visit the house he had lived in '. FIG. 1 shows a typical Egyptian boat for the dead, containing a sarcophagus. The boat is of the usual type with the hull rising a long way out of the water at each end, and the oculi on the prow are also characteristic.

In Crete, we are faced with one of the most remarkable objects illustrating the religion and funeral customs of the Bronze Age, in the

[4] C. L. Woolley, *Ur of the Chaldees* (1929), 50–52 ; *Ur Excavations* II, *Royal Cemetery* (1934), 71, 226–7.

[5] *Models of Ships and Boats* (1913), II.

[6] ibid. XXI, XXII.

[7] *The Book of the Dead* (British Museum, 1933), p. 40.

shape of the sarcophagus of Hagia Triada.[8] This celebrated sarcophagus, the date of which is Late Minoan II–III (*c.* 1400 B.C.), has depicted on its four sides what can hardly be other than the funeral rites paid to the deceased. Although several points regarding the interpretation of details are in dispute, it is generally recognized that one of the sides contains a drawing of a man offering a boat to the deceased, who appears to be standing or kneeling in front of his tomb. It is considered that this drawing shows Egyptian influence.

Another example of the boat of the dead from Crete comes from Pit Cave no. 7, Zafer Papoura, Knossos, in which a small ivory boat was found[9] with a Bronze Age inhumation. It is dated about 1500–1450 B.C.

There seems little evidence of the boat of the dead during the Bronze Age on the Greek mainland. It may however be noted that F. A. Paley,[10] drawing attention to the probably oval plan of Homeric barrows, remarked on the fact that Homer here used the same word for oval (Τορνώσαντο, *Il.* XXIII, 255) as he used elsewhere when describing the shape of a barge. The following quotation from the *Odyssey* is also suggestive :—

> 'And when rose-fingered Dawn of Morning shone,
> I sent my crew to Circe's house to bring
>
> The body thence, Elpenor that was dead ;
> And quickly felling timber where a head
> Ran out to sea, we made his funeral
> Lamenting, and a heavy tear we shed.
>
> But when the dead man with the arms he wore
> Was burned, we heaped his grave-mound on the shore,
> And reared a pillar over him, and fixed
> Upon the topmost mound his shapely oar.'
>
> *Odyssey*, XII, 8–15.

It is by no means improbable that the Greek idea of Charon ferrying the dead over the Styx may have come from Egypt. 'Charon ferrying souls across the Styx is sometimes represented as having his

[8] The classic paper by R. Paribeni is in *Monumenti Antichi dei Lincei* (1908), XIX, pp. 5–86 ; good English accounts appear in Evans, *Palace of Minos*, passim, esp. I, 437–41 ; M. P. Nilsson, *Minoan–Mycenaean Religion* (1927), 368–387 ; A. B. Cook, *Zeus* (1925), II, 516–25. A well-executed facsimile of the sarcophagus is in the Ashmolean Museum.

[9] A. J. Evans, *Prehistoric Tombs of Knossos* (1906), 25–7.

[10] Homeric Tumuli, in *Proc. Cambridge Phil. Soc.* (1866), XI, 272–3.

head turned round so as to look over his shoulder just as the ancient Egyptian ferryman of the dead did '.[11]

I have found no evidence of the boat of the dead in the Italian Bronze Age, but boats are depicted on Early Iron Age grave-slabs from Novilara, and sun-emblems dating from the end of the Bronze Age have been found at Bologna.[12] There appears to be no evidence of the boat of the dead in the Bronze Age in Spain or Portugal.[13]

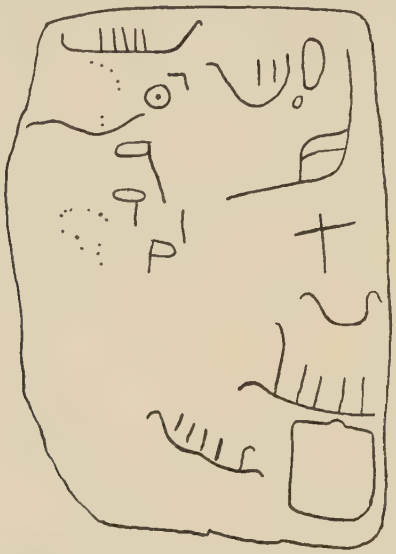


FIG. 2. MANÉ LUD, MORBIHAN, SOUTH BRITTANY, SLAB NO. 1
after Péquart and Le Rouzic

From France comes some slight evidence from rock-carvings in some of the megalithic barrows in southern Brittany, especially one of the slabs from Mané Lud, Morbihan (FIG. 2), among the figures on which appear three probable boats, each with a crew of five. Another slab from the same barrow presents a possible boat, and yet another of the slabs a probable solar emblem. ' Le presence du " Soleil " sur

[11] *The Sacred Boat*, by Dr M. D. W. Jeffreys (unpublished paper for the loan of which I am indebted to Prof. Canney).

[12] Montelius, *Civil. primitive en Italie*, I, ii, 366 ; II, i, pl. 143 ; *Monumenti Antichi*, v.

[13] Works searched included Bosch Gimpera, *Etnologia de la Peninsula Iberica*, 1932, and earlier works by Cartailhac, Aberg, and Pericot y Garcia.

le support no. 2 pourrait peut-être servir d'argument décisif et emporter la conviction que les gravures sont bien des représentations de " barques " symboliques et non de " signes cornus " ou " jugiformes " '.[14] Other possible boat-carvings on megalithic barrows in Brittany are from the Dolmen de Couëdic, the Dolmen de Kerveresse, and Ile Longue,[15] but they look more doubtful than Mané Lud.

Although England contains no known sepulchral rock-carvings of boats, it has yielded some boat-shaped hollowed tree-trunk coffins from Bronze Age barrows. Loose Howe in north Yorkshire is reported to have contained ' three dug-out canoes, two of which were used as

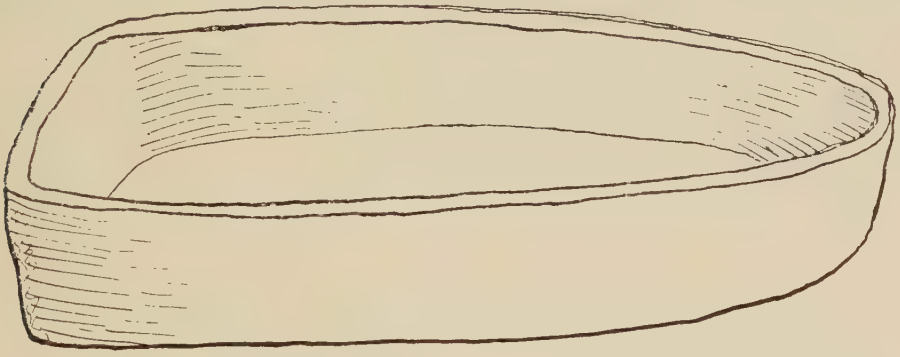


FIG. 3. OAK BOAT-SHAPED COFFIN FROM SCRUBBITY BARROW 9, DORSET
Pitt-Rivers Excavations, II, pl. 87

a coffin and its cover '.[16] Near Beverley in east Yorkshire was found a boat-shaped wooden coffin (date uncertain) containing fragments of human bones.[17] Other possible dug-out canoe-coffins from Bronze Age barrows in Yorkshire, among the least doubtful of which is Gristhorpe, have been described by Elgee.[18] A barrow near Winterbourne Stoke, Wiltshire, opened by Hoare, contained an Early Bronze Age skeleton ' within a shallow case of wood, of a boat-like form ',[19] and

[14] Péquart and Le Rouzic, *Corpus des Signes Gravés*, 1927, pl. 44–51, p. 66.

[15] loc. cit. pl. 11, 12, 62–4, and pp. 61–66.

[16] *British Museum Quarterly*, 1937–8, XII, p. 150; Hawkes, *Foundations*, 1940, p. 366.

[17] T. Wright, *Celt, Roman and Saxon*, 4th edn., 1885, p. 373.

[18] *Early Man in N.E. Yorks*, 1930, 73–5; *Arch. Yorks.*, 1933, p. 65.

[19] *Ancient Wiltshire*, I, 124–5.

certain other dug-out coffins from barrows in the same county may have been boat-shaped.[20]

In Scrubbity barrow IX, northeast Dorset, a boat-shaped wooden coffin (FIG. 3) was found by Pitt-Rivers containing a cremation.[21] It is by no means improbable that the wooden coffin from the barrow at Hove, Sussex, may have been boat-shaped.[22] Two similar canoe-coffins have been found recently by Daryll Forde in a barrow near Plynlimmon, Cardigan, Wales,[23] one of them being associated with a food vessel of Irish type.

From Scotland there comes a doubtful boat (FIG. 4, A) carved on a Bronze Age cist-slab in a barrow at Ri Cruin, Kilmartin, Argyllshire.[24] In the same cist was another slab on which were carved axes of Early

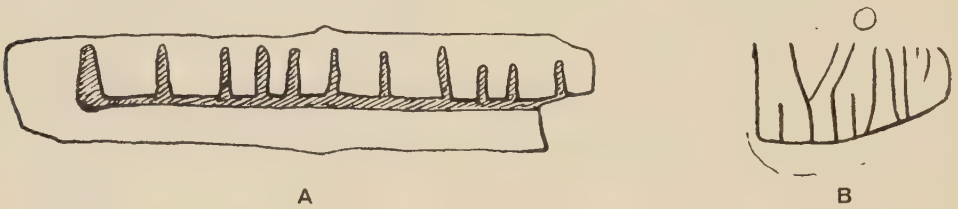
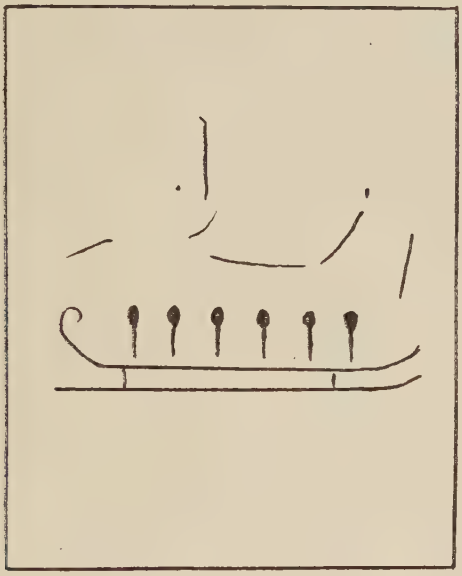


FIG. 4
(A) INCISED SLAB FROM CAVE AT RI CRUIN, ARGYLLSHIRE
(B) ENGRAVED SLAB, NEW GRANGE

Bronze Age type. It is not certain whether the Ri Cruin boat-shaped figure was intended to represent a boat or whether it is one of those 'pectiform' figures which the Abbé Breuil has shown from Spanish examples to have been often derived from animal-forms.[25] I incline to the latter view.

Ireland affords doubtful examples of boats among her fine incised chambered barrows,—one from New Grange (FIG. 4, B) and one from Dowth (Coffey, *New Grange and Other Incised Tumuli in Ireland*, 1912, figs. 7 and 40), and perhaps one from Loughcrew.[26] Although accepted as ships by Coffey and others they have been rejected by

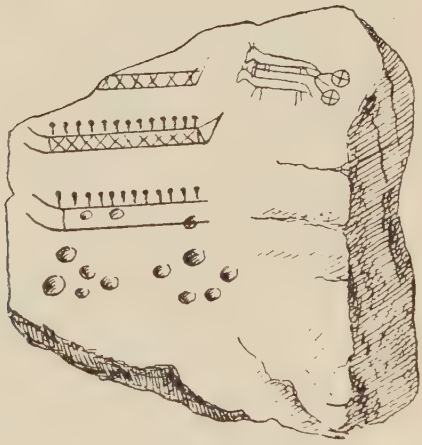
[20] *Proc. Prehistoric Soc.*, 1941, shortly to appear.
[21] *Excavations*, II, pl. 87.
[22] Curwen, *Arch. Sussex* (1937), 162; *S.A.C.*, LXXV, 265 (66 SW. no. 1).
[23] *Ant. Jour.*, XIX, 90; Childe, *Prehistoric Communities* (1940), 130.
[24] Childe, *Prehistory of Scotland* (1935), pl. XI, p. 115.
[25] Breuil and Burkitt, *Rock-Paintings of Southern Andalusia* (1929), p. 9.
[26] *American Anthropologist*, 1923, XXV, 387–96.



A



B



C

FIG. 5

(A) INCISED STONE SLAB FROM CAIRN AT KIVIK, SCANIA, SWEDEN, *after* Simpson and Almgren
(B) BURIAL CHAMBER WITH INCISED CAPSTONE, GREVINGE, ZEELAND, *after* A. E. Holmberg
(C) INCISED STONE SLAB FROM BARROW AT VILLFARA, SCANIA, SWEDEN, *after* Simpson

Breuil (P.P.S.E.A., 1934, VII, 321) and apparently also by Mahr (P.P.S., 1937, 355), while Almgren is not sure about them (*Hällristningar*, 1927, fig. 129). The circle just above the (?) boat from New Grange (FIG. 4, B) may be a sun-disc. Whether these Irish figures represent boats, pectiform designs, or other things, the close relations between Ireland and the Iberian peninsula during the Bronze Age should be borne in mind when interpreting them.[27]

The celebrated gold model boat from the Broighter find was unconnected with any burial.[28]

We now come to the most important and perhaps most interesting of all the Bronze Age evidence of the boat of the dead,—that afforded by some of the Scandinavian sepulchral rock-carvings. It should however be noted that most of the Scandinavian rock-carvings of boats are on open rock surfaces unconnected with barrows.

The celebrated Kivik barrow on the coast of Scania, contained a long cist of 8 slabs of which 7 had engravings. On one of these was a boat (FIG. 5, A) and another contained a carving of what may be a boat but is probably a sledge. The whole series is well dated by the presence of drawings of Early Bronze Age axes on one of the slabs. On two of the other slabs are probable sun-symbols (wheeled crosses). Although details of interpretation of this series of carvings are very difficult, there can be little if any doubt that they represent the funeral rites of the dead.[29] Another important Swedish example is from a barrow at Villfara, Scania, the grave-slab having drawings of three boats, one of which is drawn over cup-and-ring markings which are therefore earlier. There is also a chariot of a type similar to that appearing on one of the Kivik slabs (FIG. 5, C). Perhaps the most significant of all is the capstone of the burial-chamber from Grevinge,

[27] See e.g. Bosch Gimpera, ' Relations Préhistoriques entre l'Irlande et l'Ouest de la Péninsule Ibérique ', *Préhistoire*, 1933, II.

[28] See E. C. R. Armstrong, *Cat. of Irish Gold Ornaments*, 1920, pp. 26–9, 95–7.

[29] The original account, *De Monumento Kiwikensi*, by Sven Lagerbring, 1780, is extremely rare in Britain, but there is a copy in the Bodleian. Lagerbring's drawing of the boat slab is hardly recognizable as a boat. A. E. Holmberg, *Skandinaviens Hällristningar*, 1848, discusses Kivik at length (pp. 139–45) and illustrates the boat slab (Tab. 44). In *British Archaic Sculpturings*, 1867, Sir J. Y. Simpson illustrates the complete set of slabs fairly well but his interpretation differs in some details from that now generally accepted (pp. 84–90, pl. 32). Good modern accounts are in J. Brøndsted, *Danmarks Oldtid*, II, 105, 115, passim ; O. Almgren, *Hällristningar och Kultbruk*, 1927, chap. IV, and in *Fornvannen*, 1938, pp. 3–5, which contains a photograph of the barrow. The incised slabs are in the National Historical Museum, Stockholm.

Zeeland (FIG. 5, B), on which are depicted at least three boats and three sun-discs, their association on the same slab recalling the well-known boats of the sun in Ancient Egypt. In this connexion we may recall the find of 100 model gold boats from Nors, Denmark, some of which are engraved with sun-symbols.[30] A probable Norwegian example came from a cairn called Mjeltehaug in Giske parish, Romsdal district, in 1878, along with several other incised slabs, one of which contains what appears to be a sun-disc.[31] Although most of the well-known Scandinavian ship-graves (*skeppssättningar*), consisting of stone slabs arranged in the form of a ship, are known to belong to the Early Iron Age, a few of them go back to the Bronze Age.[32]

The connexion of the boat of the dead in Scandinavia with sun-emblems suggests the possibility of a derivation, probably indirect, from Egypt, and this is supported by other evidence of contact between Scandinavia and the Aegean in the Bronze Age. We have already seen that the Hagia Triada sarcophagus was inspired by Egyptian influence, and in any case the diffusion of some elements of Bronze Age culture from Egypt to the Aegean is a commonplace of modern prehistory.[33]

As long ago as 1895 Montelius stated a case for the spreading of some elements of Bronze Age culture from Mycenae to Scandinavia.[34] Among the evidences of contact between the Bronze Age cultures of the Aegean and Scandinavia we may recall the similarity in the use of spirals as a decorative motif ;[35] the probable derivation of the Nordic stone double battle-axes from the Mycenaean double-axe ;[36] evidence of trade in amber,[37] and the finding of a Mediterranean shell in a

[30] For Villfara and Grevinge see Sir J. Y. Simpson, loc. cit. pl. 31, pp. 82, 90 ; a better illustration of Grevinge is in Holmberg, *Skandinaviens Hällristningar*, 1848, Tab. A–B, fig. 24, described in pp. 79–80. For Nors see Shetelig, Falk and Gordon, *Scandinavian Archaeology* (1937), 155–6 ; Brøndsted, *Danmarks Oldtid*, II, 173–4.

[31] *Bergens Museums Aarbok*, 1912, no. 4.

[32] e.g. one from Halland is figured in Almgren, *Sveriges Fasta*, 1934, fig. 85.

[33] See H. R. Hall, *Civilisation of Greece in the Bronze Age*, passim.

[34] Les Temps Préhistoriques en Suède, 1895, pp. 62–3, 132 ; cf. E. de Lange in *Bergens Museums Aarbok*, 1912, no. 4, p. 36.

[35] Shetelig, Falk and Gordon, *Scand. Archaeology* (1937), 131–2.

[36] Hawkes, in *Annual of British School at Athens*, 1940, XXXVII, 141–59.

[37] For maps of probable amber routes see de Navarro in *Geog. Jour.*, 1925, LXVI ; Bosch Gimpera, *Etnologia de la Peninsula Iberica*, fig. 204.

barrow at Hvidegard near Copenhagen.[38] Shetelig however has stated[39] that ' no articles from the Mycenaean area are ever found on Scandinavian ground ', and from this we should infer that the contact was indirect.

Dr Almgren has stated that the Kivik carvings are slightly later in date than the Hagia Triada sarcophagus.[40] This supports the view that the idea of the boat of the dead may have reached Scandinavia from the Aegean and ultimately from Egypt. Prof. Gordon Childe has indeed suggested[41] that the Bronze Age shipbuilding of Scandinavia may have been largely due to the arrival of mariners from the Aegean.

As for Brittany and southern England, these areas and the Aegean were by no means strangers in the Bronze Age, and it is possible that here also the Bronze Age idea of the boat of the dead may have been derived from the Aegean. Examples on the northeast coast of England, such as Loose Howe and perhaps Gristhorpe, suggest possible contact with south Scandinavia or north Germany; but the presence at Loose Howe of a pin of Aunjetitz type and a stone double-axe[42] indicates that even if the immediate influence was central or north European, the ultimate influence here also was Aegean.

[38] Montelius, *Temps Préhistoriques en Suède* (1895), 132.
[39] *Scandinavian Archaeology* (1937), 132.
[40] *Hällristningar och Kultbruk* (1927), 327.
[41] *The Bronze Age* (1930), 52.
[42] Childe, *Prehistoric Communities* (1940), 125, 130.

The Rabbit and the Hare in Wales

by Colin Matheson

THE rabbit shares one characteristic with the archaeologist—both dig into the earth. Hence the latter, contemplating some object or evidence revealed by his spade, may sometimes be viewing merely the result of the activities of a humbler but much more numerous type of excavator. Is he not warned to ' always make sure that an apparent post-hole is not a rabbit- or rat-hole '?[1] And does not Professor James Ritchie describe the rabbit as ' a burrower and a vandal which makes short cuts through the neat layers and classifications of the excavator '?[2] On the other hand, the rabbit's activity or lack of it may on occasion be of service ; it was a long patch of virgin turf on Easton Down, untouched by rabbits or moles, which led Dr Stone in 1932 to remove the turf, thus revealing a layer of tightly packed flint nodules covering a Bronze Age urn-field. Hence no apology, we feel, is needed for an article on the rabbit in a journal primarily concerned with archaeological research ; particularly as much of the article deals with the status of the rabbit in medieval times, a topic which has already figured briefly in Antiquity.[3]

The main facts about the history of the rabbit in the British Isles have been set out so adequately by other writers, e.g. by Barrett-Hamilton and Hinton in their *History of British Mammals* and by Professor Ritchie in his *Influence of Man on Animal Life in Scotland*, that all we need say is that the rabbit, in the opinion of most zoologists who have studied the matter, was introduced to England from France by the Normans, and that there is no satisfactory evidence of its existence in England before the thirteenth century. A letter from Mr Reid Moir in *The Times* five years ago, querying this view, gave rise to some interesting correspondence,[4] including a letter from Mr M. C. Harman, who

[1] *Notes on Archaeological Technique* (Oxford University Archaeological Society), p. 19.

[2] *The Influence of Man on Animal Life in Scotland*, p. 247.

[3] 1936, pp. 364, 462–3.

[4] See *The Times* of 6, 7, 23, 28 May 1936.

quoted a deed referring to Lundy Island and preserved among the muniments of the city of Exeter, that provides what is apparently the oldest written reference to the rabbit in this country ; though undated, this deed must have been drawn up before 1234, and may even be a little before 1200. As regards actual remains, the midden at Rayleigh castle (11th–13th centuries) is, according to Hinton, the oldest of the post-Pliocene deposits in Britain from which contemporary bones of rabbit have been obtained.

Subsequently the multiplication of the rabbit in England was so rapid that Gesner in 1551 commented on the ' copia ingens cuniculorum' in that country : though even in much later times its distribution appears to have been irregular, some districts having practically none. Thus Pringle wrote in 1797 of Westmorland,[5] that ' a few rabbits are kept in the neighbourhood of Brough and Orton, and there is a small warren in Ravenstondale, but it is rare to see them in any other part of Westmorland '; today it is almost impossible to find any area in the county without rabbits. In Scotland there are records almost as early as in England, and by the sixteenth century or earlier the rabbit was numerous in several parts ; but there are many Scottish districts where it was almost unknown as late as the beginning of the nineteenth century. In the present article it is proposed to trace the story of the rabbit in Wales, a subject which has not received much attention from previous writers. Some of the early records I have noted elsewhere,[6] but much additional data has been obtained from both published and unpublished sources.

The first record of the rabbit in Wales dates from 1282, when a payment of 3*s* 6*d* was made to Richard le Forester for catching rabbits for the king's use and for keeping the king's ferrets at Rhuddlan castle in Flintshire.[7] About the same date (1284) the commote of Estimaner (comprising the modern parishes of Towyn, Penal, Llanfihangel y Pennant, and Talyllyn) in Merionethshire had to pay 8 shillings for the upkeep of a rabbit-warren (*haracium*), each house, ninety-six in all, paying one penny.[8] In 1376 there was a warren at Castle Kerdyf

[5] *General View of the Agriculture of the County of Westmorland* (Newcastle, 1797), p. 332.

[6] *Changes in the Fauna of Wales within Historic Times*, and ' Notes on Domestic and Wild Animals in Montgomeryshire ' (*Montgomeryshire Collections*, 1933).

[7] *The Antiquary*, 1911, p. 302.

[8] *Archaeologia Cambrensis*, 1884, pp. 276–8.

(Cardiff),[9] and in 1492 we read of one on the Flat Holm, a small island in the Bristol Channel near Cardiff.[10] For long after these dates the rabbit seems to have remained mainly or entirely coastal in distribution in Glamorgan, for the Elizabethan historian Rice Merrick, writing in 1578, gives the list of rabbit-warrens in the county as follows :—Llandaf, Barry Yland, Mynidd Glew, Wyke, Wenny, Morgan, Britton Fery—all on or close to the coast.[11]

On the Welsh islands at the mouth of the Bristol Channel the rabbit was also numerous at an early date—in a Pipe Roll of 1325–6 we have on the receipts side the following : carcases and skins of rabbits caught in the islands of Schalmey, Schokolm, and Middelholm, £13 12*s* 0*d*, and on the expenditure side : stipend of 3 ferreters 12*s* 3*d* ; sundry expenses as follows : salt for the aforesaid rabbit carcases, thread for rabbit nets, boards, nails and cord for the boat used in the said islands, 3*s* 2*d*. In 1387–8 a total of 3120 carcases was obtained from the three islands, of which 2318 were sold, 540 used as food for the ferreters, and 262 as food for two ferrets ; in the preceding year the catch of 3000 skins was valued at £11 9*s* 2*d*. Other items which figure in the accounts for 1387 are shovels (*vangas*) for digging out rabbits, barley and cooking utensils for the ferreters, etc.[12] North as well as South Wales apparently did a considerable trade in rabbit-skins, for at Conway a man named Ieuan lost in Glyndwr's rebellion 2400 skins stored in a bark-house there.[13]

On the Pembrokeshire mainland, in 1517, the Prior of Pill granted a forty-year lease of property including a rabbit-warren, to Morris Butler, the Prior and Convent reserving to themselves the right to hunt in the warren three times a year.[14] George Owen of Henllys, writing of Pembrokeshire at the close of the sixteenth century, specially mentions the numerous rabbits on the islands, but says of the mainland simply that several gentlemen had good warrens of conies.[15] In North Wales also we find the islands mentioned as the homes of numerous conies, by John Leland, writing about 1540 of St. Tudwall's

[9] *Cardiff Records*, edited by J. H. Matthews, I, 152.

[10] ibid. p. 175.

[11] *A Booke of Glamorganshires Antiquities*, edited by J. A. Corbett, p. 113.

[12] Cymmrodorion Record Series no. 7, *Calendar of Public Records relating to Pembrokeshire*, I, 62–3, 68, 80, 103–6, etc.

[13] E. A. Lewis, *Medieval Boroughs of Snowdonia*, p. 192.

[14] Emily M. Pritchard, *History of St. Dogmael's Abbey*, pp. 145–6, 150–1.

[15] Cymmrodorion Record Series no. 1, 'The Description of Penbrokshire', pp. 111–3, 268.

Island, St. Dwynwen (Llanddwyn) in Anglesey, and Hilbre Island on the Cheshire side of the Dee estuary.[16] Thomas Pennant, during his tour in North Wales about 1773, remarked on the presence of rabbits on Puffin Island and the Skerries, both off the Anglesey coast; and noticed also the 'vast and profitable warren' of Sir Pyers Mostyn, at Talacre on the Flintshire coast, noted 'for the delicacy of the rabbets, by reason of their feeding on the maritime plants'.[17]

While future research may reveal some records of early Welsh warrens inland, the forgoing, which include every record before 1800 that has come to the writer's notice over a number of years, all indicate a coastal distribution (see FIG. 1). This is in full accordance with the statement by Walter Davies (1813) that in the interior of North Wales there were then 'but few rabbits', but that in the sandy places round the coast, where the soil favoured their burrowing, they were numerous.[18]

It has been supposed that in the Edinburgh district, the presence of the rabbit in various localities from early days was due to its introduction by the inmates of the monasteries, and Davies's reference to the abundance of rabbits around the ruins of Llanddwyn Monastery, also the lease of a warren by the Prior of Pill, suggests that in Wales likewise there may often have been an association between monastery and warren.

In any case the position, as indicated by our survey, is that rabbits were common on the islands round the Welsh coast long before 1800, and were also preserved and well established in various private warrens on estates on the mainland coast; but elsewhere were either few or absent. Other stray indications point the same way. There is for example a (unpublished) note in the diary of L. W. Dillwyn that in 1840 a troop of polecats swam the Ogmore River, in Glamorgan, to get at Talbot's warren (presumably at Margam); this suggests that rabbits were not then very common in some much nearer places where they are today abundant. Similarly, it is suggestive that Pennant, though he refers to the warren at Talacre, omits the rabbit from an annotated list of 32 species of mammals inhabiting the Flintshire parishes of Whiteford and Holywell no great distance away.[19]

[16] *The Itinerary in Wales of John Leland in or about the years* 1536–1539, edited by Lucy T. Smith, pp. 53, 88, 92.

[17] *Tours in Wales* (1810 edition), III, pp. 39, 69, and II, p. 113.

[18] *General View of the Agriculture and Domestic Economy of North Wales*, p. 347

[19] *History of the Parishes of Whiteford and Holywell*, p. 144.

Barrett-Hamilton and Hinton remark of the rabbit that ' It may . . . be successfully introduced on islands in regions where it could not

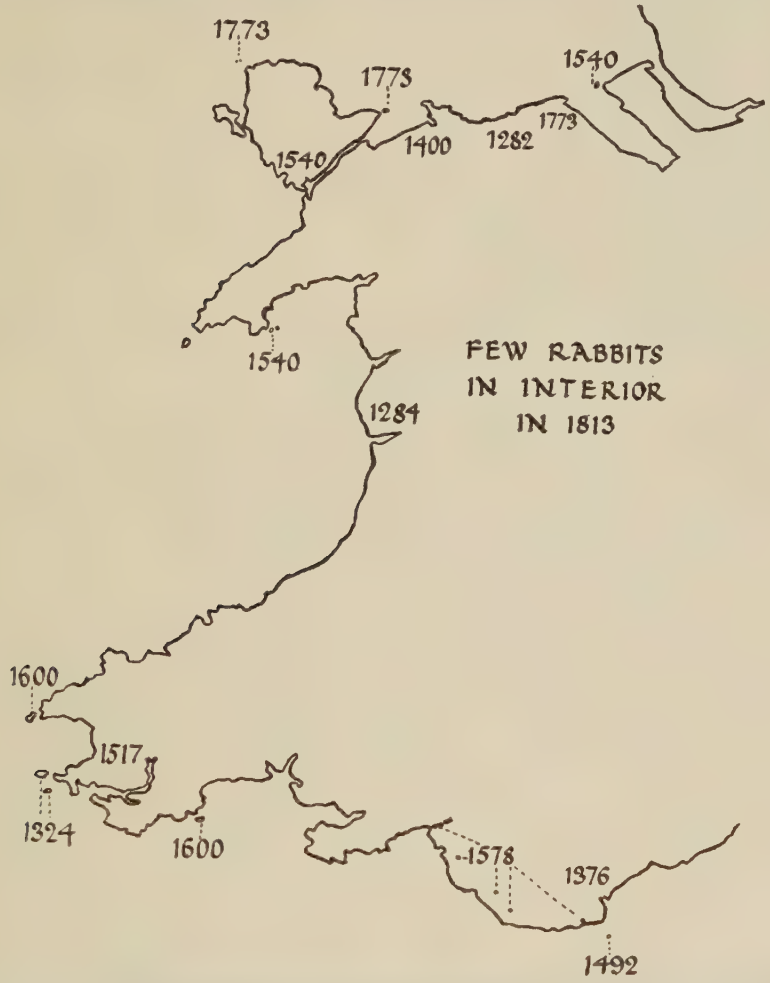


FIG. 1. KNOWN PUBLISHED RECORDS OF THE OCCURRENCE OF THE RABBIT IN WALES UP TO THE BEGINNING OF THE NINETEENTH CENTURY (ONLY THE EARLIEST DATE BEING QUOTED FOR ITS OCCURRENCE IN EACH LOCALITY). IT SEEMS EVIDENT THAT THE ANIMAL WAS CONFINED TO THE COASTAL DISTRICTS, AND WALTER DAVIES, AS LATE AS 1813, COMMENTED THAT THERE WERE FEW IN THE INTERIOR OF NORTH WALES

be established on the adjacent mainland, and this is characteristic of it everywhere throughout its range '. One factor in this phenomenon

is that large carnivores are usually absent from small islands, which do not provide the food supply and other conditions necessary for them to flourish. Bearing in mind the wild wooded nature of much of the Welsh mainland in early days, and the presence in numbers of beasts of prey[20] ranging in size from the wolf to the weasel, it is not surprising that the rabbit, however it might flourish under protection in the coastal warrens, did not spread over the countryside generally.[21] So too in the north of Scotland, although the city of Aberdeen is stated to have had its own warren on the links as early as the fifteenth century, rabbits were not familiar in the adjacent area of Buchan until well into the nineteenth century.

The multiplication of the rabbit then in the inland districts of Wales was subsequent to the year 1800. To this multiplication several causes contributed, though not necessarily the same causes operating in Scotland. There, the marked increase in the rabbit population was, according to Professor Ritchie, contemporary with and in large measure caused by the notable advances in agriculture, culminating in ' the golden age of British agriculture ' subsequent to 1853. Though in North Wales the rabbit was, according to Davies, scarce in the interior at the beginning of the century, yet by 1885 it was possible for an estate-owner and his shooting party to account for 5086 rabbits in one day on a Merionethshire estate.[22] That this increase, however, had much connexion with agricultural developments is at least doubtful. It is true that at the close of the eighteenth and the beginning of the nineteenth century considerable progress was made in arable farming in North Wales, but this appears to have come to a halt soon after the close of the Napoleonic wars. When the House of Commons Committee on agriculture made its report in 1821, wheat cultivation was on the down-grade in Wales and much land had gone out of tillage altogether ; and parliamentary blue books of the 'thirties reported that Welsh farming capital was steadily declining.[23] In South Wales, as

[20] For example, I have given in *The Bulletin of the Board of Celtic Studies*, May 1940, pp. 177–87, particulars of wild cats, foxes and ravens destroyed in a Merionethshire parish in the early years of the eighteenth century.

[21] In the Annual Report for 1892–3 of the Nilghiri Game and Fish Preservation Association, under the heading ' Exotic and Introduced Game ' we read ' The game-watcher reports that he occasionally sees Rabbits, but they have probably scattered and are not likely to increase very fast in such a vermin-infested district as Kartéri.'

[22] J. G. Millais, *Mammals of Great Britain and Ireland*, III, 53.

[23] A. H. Dodd, *The Industrial Revolution in North Wales*, pp. 50–2

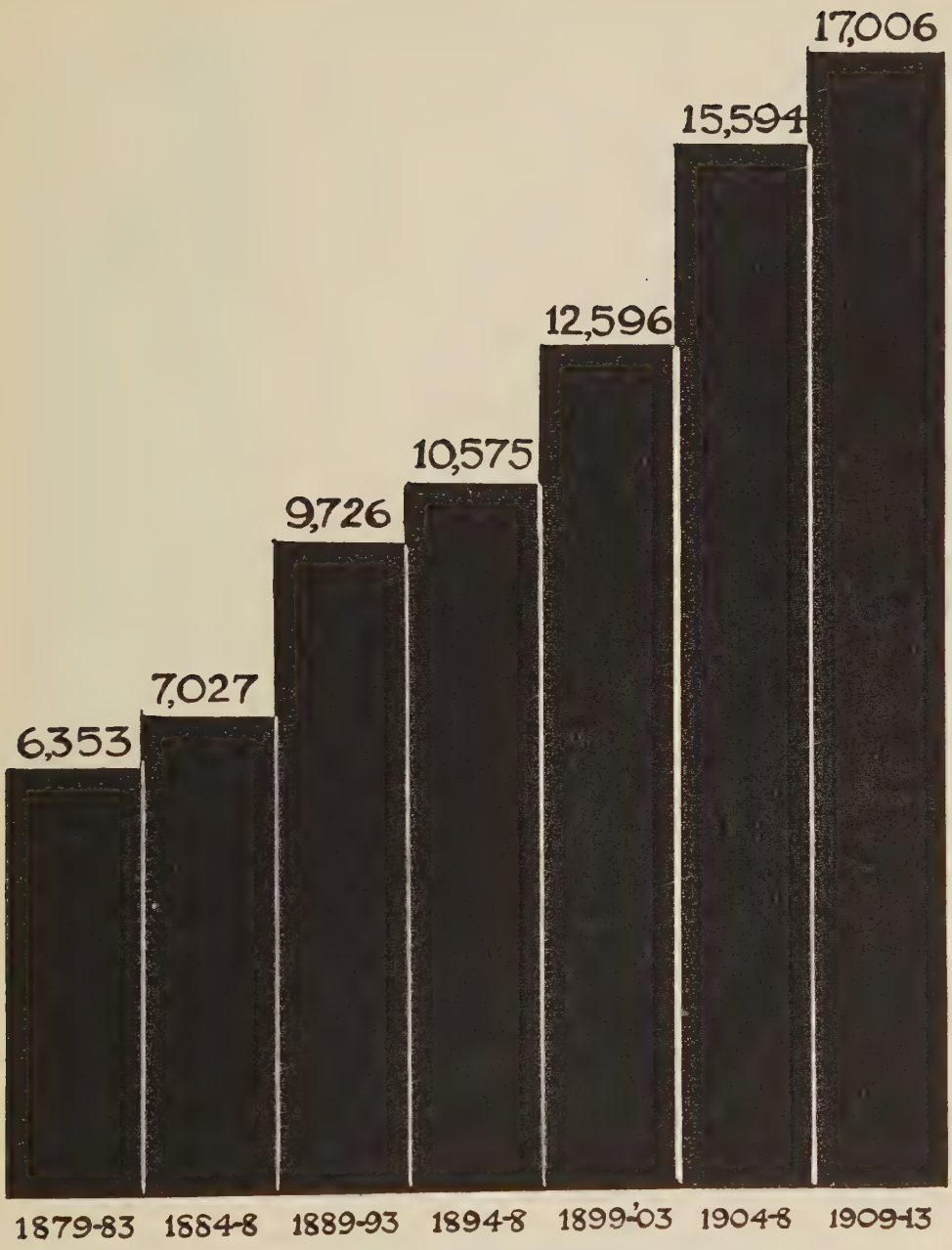


FIG. 2. DIAGRAM SHOWING INCREASE IN THE NUMBER OF RABBITS SHOT ON AN ESTATE IN SOUTH WALES, IN EACH FIVE-YEAR PERIOD FROM 1879 TO 1913

the industrial revolution developed, there was, particularly after 1841, a rural exodus to the iron and coal producing valleys of the southeast, accompanied by the decay of many industries which had supplemented the earnings of agriculture.

The increase of the rabbit therefore would appear in most parts of Wales to be due to other factors than agricultural progress. Among these was the deliberate turning-down and preserving of rabbits in districts where they were previously scarce; various instances of this are noted in the report of the Royal Commission on Land in Wales,[24] published in 1896. With the introduction and preservation of the rabbit, and (about the same period) of the pheasant, went the systematic destruction by the gamekeeper of beasts and birds of prey—wild cats, polecats, falcons, etc. One example, though rather late in date, may be mentioned—between 1874 and 1902, on an estate near Bettws-y-coed, 1988 kestrels were killed.[25]

In several parts of Wales, during a great part of the century, the increase of the rabbit was associated with, and perhaps partly responsible for, a marked decrease in the numbers of another rodent once common, the brown hare. In our further discussion of the rabbit therefore these two phenomena may conveniently be dealt with together.

The hare in Britain antedates the rabbit by about 1300 years in its appearance in the literary field, since Julius Caesar refers to it as indigenous to our country, and states that the natives considered it impious to eat it. Later, in Wales, it was associated with various superstitions which may on occasion have tended towards its preservation. Pennant quotes a Montgomeryshire legend associating the hare with St. Monacella, who founded an abbey on the spot where she saved a hare from the hunters. 'Till the last century, so strong a superstition prevaled, that no person would kill a hare in the parish; and even later, when a hare was pursued by dogs, it was firmly believed that if anyone cried "God and St. Monacella be with thee", it was sure to escape'.[26] According to the tenth-century Welsh laws attributed to Prince Hywel Dda, the hare changed its sex every month.[27]

But the hare was nevertheless a favourite beast of the chase; in

[24] pp. 503, 511.

[25] H. E. Forrest, *The Vertebrate Fauna of North Wales*, p. 246.

[26] *Tours in Wales* (1810 edition), III, 173–4.

[27] A. W. Wade-Evans, *Welsh Medieval Law*, p. 225.



FIG. 3. DIAGRAM SHOWING DECREASE IN THE NUMBER OF HARES SHOT ON AN ESTATE IN SOUTH WALES (THE SAME ESTATE AS IN FIG. 2) IN EACH FIVE-YEAR PERIOD FROM 1879 TO 1913

Y Naw Helwriaeth (The Nine Huntings), a text generally considered as embodying the hunting customs of the early Welsh, the hare was one of 'the three hunts with shouting', and its flesh was regarded, like that of the stag, the boar and the bear, as a special delicacy.[28] And George Owen wrote of Pembrokeshire in the reign of Elizabeth that no county in England contained more hares, 'in such nomber neere vnto woodes and covertes, that the neighebours corne is by them greately endamaged, and I haue knowne in my tyme a husbandman, that rose often nights out of his bedd, to chase awaye the hares from his corne, so much harme he founde by theire feedinge'; one man by tracing in the snow would kill sixteen or seventeen in a morning, 'yett is theire encrease such as noe man feeleth griefe or perceaveth wante. Therefore this beaste affordeth sufficiente pastyme to hunte with the houndes and chase with grayhoundes, and manye places of this sheere is litle or noethinge inferior for plentye to the speciall warrens of hares preserved in manye partes of Englande'.[29] Somewhat later Lewis Morris, writing of Llanbadarn Fawr and Aberystwyth, remarked that 'The diversions of ye gentry are chiefly cock-fighting and coursing, hares being very plenty'.[30]

In several parts of Wales the abundance of the hare, once characteristic of every county, is now a thing of the past. The causes of this are various—increase of industrialization and concomitant increase of population had probably much to do with it in counties like Glamorgan. The Ground Game Act of 1880, allowing tenants to shoot hares and rabbits, may also have been a factor of importance in various districts. Forrest, in 1907, noted that since the passing of the Act the hare had become scarce or vanished altogether from districts where it was formerly common;[31] and in a game-book kindly lent me by an estate owner in Brecknockshire, a record of 77 hares shot by five guns on 2 December 1875, has a footnote added by the owner later, 'This was the largest number of hares ever killed here in a day. It is hard now, since the passing of the Hares and Rabbits Act, to find one'. The increase of the rabbit, it can hardly be doubted, was another factor, for that rodent had by this time become too numerous to be affected much by the provisions of the Act, and the destruction and fouling

[28] Matheson, *Changes in the Fauna of Wales within Historic Times*, p. 85; see also I. C. Peate in ANTIQUITY, 1934, pp. 73–80.

[29] Owen, op. cit. pp. 265–6.

[30] See *Archaeologia Cambrensis*, 1938, p. 26.

[31] Forrest, op. cit. p. 57.

by numerous rabbits of the grass on which the hare feeds has apparently reduced the numbers of the latter in many parts of the country.

FIGS. 2 and 3 provide a striking illustration of the difference in status between the two species, which is applicable in greater or less degree to several parts of Wales. Both figures refer to the same estate in Glamorgan; for the quinquennial period 1879–1883 the gamebooks show a total of 738 hares shot, which decreased to 22 in the period 1909–1913; the rabbits recorded for 1879–1883 numbered only 6353, which had risen in the 1909–1913 quinquennium to 17006. Neither the decrease nor the increase is a purely natural biological phenomenon; thus, the owner to whom I am indebted for these statistics remarks that the estate 'became increasingly subject to trespass and disturbance, owing to increased population, new works and collieries from about 1890 onwards, and it is disturbance in particular which hares dislike', while with regard to the rabbits he mentions that 'from about 1895 it became the custom to preserve rabbits for the gun in certain enclosed areas and this . . . accounts for the increased numbers shot'. But the increase had in any case, as is clear from our figure, been going on for long prior to that date;[32] and for ANTIQUITY, which is concerned with human activities rather than those of animals, one could hardly find a more interesting example of the results of man's actions on the fauna around him.

The influence of animals and other environmental factors on human history, and the recoil upon man of his experiments with the animal life around him, is a theme with endless ramifications. Dr Wheeler in his *Prehistoric and Roman Wales*, after mentioning among others the well-known theory that the inroads of the malarial mosquito were responsible for the decline of ancient Greece, remarks sadly, 'All these suppositions may be true. But the clay is sometimes a little heavy about our boots'. But the story of the rabbit is not too heavy to be devoid of interest to the student of human activities; and little clay will adhere to the boots of the student who follows its early history in Wales, since, as Davies tells us, its original haunts were 'on the sea-coasts, where the sandiness of the soil favours their burrowing'.

[32] The increase of the rabbits is in fact illustrated for this estate by statistics going back as far as 1859, though these have not been utilized in the text figure because strictly comparable statistics are not available for the hares. The numbers of rabbits recorded for the earlier years are:—1859–63, 1009; 1864–8, 5085; 1869–73, 3935; and 1874–8, 3775.

Notes and News

SOIL ANALYSIS

The following note on ' Soil analysis and the Location of sites of ancient Habitations ' is reprinted from the *Geographical Review* by permission of the American Geographical Society of New York. In connexion with this subject we refer to the notes (translated) by Walter von Stokar on soil chemistry (' Prehistoric organic Remains ') in ANTIQUITY, 1938, XII, 82–6.

The experiments of O. Arrhenius, a Swedish soil chemist, have, during the past decade, opened up a new and unique method for searching out the location of places inhabited by ancient man. While engaged in the mapping of soils in Sweden, Arrhenius discovered certain anomalies in the areal distribution of phosphoric acid that could not be satisfactorily explained on any pedologic basis. His data had already clearly shown that the amount of phosphoric acid in the soil was appreciably greater in areas that were the sites of agricultural villages than in the surrounding fields. In the course of his further research, he found that this close correlation persisted even where the villages had long since disappeared, even, in fact, to Stone Age settlements !

The principal elements by which the soil of a settlement is enriched are nitrogen, potash, magnesium, lime, and phosphoric acid. Except in regions having a dry climate, the nitrogen, potash, magnesium, and lime concentrations will in time largely disappear. The phosphoric acid, however, either in an insoluble state (phosphate of lime or phosphate of iron) or through colloidal absorption, will remain in the soil and even a long time after the village has vanished, will bear witness to its former existence. The technique of measuring the P_2O_5 in the soil in relation to human habitation has been perfected to the point at which not only can the sites be located through its abnormal occurrence but it is possible to estimate the number of people that have lived at a particular place and the length of time they lived there.

Perhaps no other single experiment more clearly demonstrates the preciseness of this method developed by Arrhenius than its use in the location of ancient routes of travel. Although less waste accumulates

along a road than in a village, his data reveal the position of old paths of communication and the shiftingness of their location.

As the work of Arrhenius has been carried on exclusively in Sweden, a question has arisen concerning the value of his method when applied in regions with vastly different types of climate and soil. The recent investigations of E. M. Castagnol and Paul Lévy in Indochina have proved that the technique is valid in the laterite soils of that country (E. M. Castagnol, ' Méthode d'analyse du sol appliquée à la recherche des emplacements anciennement habités ', *Inst. Indochinois pour l'Etude de l'Homme, Bulletins et Travaux*, vol. II, 1939, pp. 191–203 ; ' Note de M. Paul Lévy ', pp. 202–3). After performing several field experiments, Castagnol reports that ' the results obtained at Tonkin confirm those of Arrhenius in Sweden, and it seems that this method of searching for sites of ancient habitations can be applied as well to tropical regions as to temperate '.

The value of the method in tropical lands may be readily appreciated. In such a region as Indochina, where ordinary construction materials are largely wood, mud, and straw and where both the temperatures and the humidity are high, it is possible for even very large ancient settlements to disappear completely. They can now be located without information obtained by extensive excavation or documentary evidence relating to their existence. The ability to define the old lines of communication, now long non-existent, and to trace them to the ancient population centres to which they led greatly simplifies the search for the records of ancient man and results in a considerable economy in both time and money.

MONUMENTS OF ORKNEY AND SHETLAND

The ' Inventory of the Ancient and Historical Monuments of Orkney and Shetland ', of which publication was imminent at the outbreak of war, is now accessible to the public. A set of paged proofs has been placed in the National Library of Scotland in Edinburgh, where it may be consulted by anyone who calls there for that purpose. In order to ensure so far as possible that, if the stock of printed sheets should be destroyed, a copy may yet survive, six other sets have been distributed in as many different places regarded as relatively safe ; these, however, are not accessible to the general public.

The Inventory accompanies the Commissioners' twelfth report. It represents the work of years by several trained archaeologists in a region particularly rich in ancient sites and ecclesiastical monuments.

CONNEXIONS BETWEEN EGYPT AND RUSSIA

Some years ago Sir Flinders Petrie claimed that there were definite connexions between ancient Egypt and southern Russia, more particularly with the Caucasus; but as his opinion was based entirely on literary and philological evidence archaeologists have been slow to accept it. Archaeological evidence in support of that claim is, however, coming in by slow degrees, and it seems probable that in time the evidence will prove that the founder of the science of Archaeology was right in his conjecture.

I bring forward now two pieces of evidence in support of his claim; the first is literary and pictorial, the second is purely archaeological.

(1) As I have already published the first in full detail (*Ancient Egypt*, 1934, p. 115) I merely give a summary here. The name of the god 'Ash occurs five times in the inscriptions of Egypt, and in four of the five it is evident that he is of foreign origin. He appears first on the sealings of wine-jars of the IInd dynasty (Petrie, *Royal Tombs*, II, pl. XXII, 178, 179; pl. XXIII, 199, 200), where he is shown in connexion with vineyards. In the Vth dynasty he is called 'Lord of Tehennu', i.e. the Land of the Olive-tree (Borchardt, *Sahurê*, p. 17, abb. 11). In the VIth dynasty he is mentioned in an unintelligible passage in the Pyramid Texts of king Pepy. In the XVIIIth dynasty (*c.* 1500 B.C.) his name occurs in chapter XCV of the Book of the Dead in a rain-charm, 'I am the Terrible One in the thunderstorm. I am refreshed by this 'Ash'. The connexions with the vine, the olive, and with rain, give plain indication that this is not an indigenous god in Egypt, but his actual provenance can be demonstrated with some certainty. A representation of him in the XXVIth dynasty (*c.* 600 B.C.) depicts him with three heads (FIG. 1), a lion, a snake and a vulture; his name is written beside him, ''Ash of many faces'. Here again he is obviously foreign, for no indigenous Egyptian god is multiple-headed. In Sebastian Münster's *Cosmographia Universalis*, published in 1545, there occurs the picture of a three-headed god which must surely be the same as the god 'Ash, for the heads are those of a lion, a snake and a vulture (FIG. 2). Though Münster calls them the heads of a lion, a toad, and an eagle, a comparison of the two representations shows that they are as similar as it is possible to be, allowing for two different styles of art. The 'eagle' has the feathering down the back of the neck, a characteristic of the Egyptian vulture; the 'toad' is copied from the snake's head; in both examples the band showing the edge of the mask



FIG. 1. 'ASH OF MANY FACES
From a coffin in the Brighton Museum



FIG. 2. A SCYTHIAN DEITY



FIG. 3. SOUL-HOUSE SHOWING STOVE, WATER-POTS, AND WOMAN GRINDING CORN (3:5)
Ph. T. A. G. Strickland

facing p. 384

PLATE II

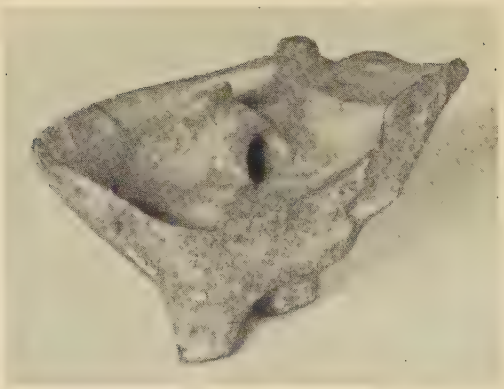


FIG. 4. FRAGMENT OF SOUL-HOUSE SHOWING STOVE (3:5)



FIG. 5. POTTERY FIGURINE, SIDE (3:4)



FIG. 6. POTTERY FIGURINE, FRONT (3:4)

Ph. T. A. G. Strickland

worn by the human impersonator of the god is clearly indicated; and in Münster's picture the figure wears a loin-cloth, a unique feature in a European representation of a 'demon'. My point here is that Münster states in so many words that this deity was called up to advise Marcomir, king of the Franks, when that monarch and his tribe were still in the land of Scythia.

(2) My second piece of evidence is entirely archaeological, and again points to a connexion between southern Russia and ancient Egypt. Among the finds of the Tripolye culture found on a site on the Dnieper are the two objects illustrated here. The first is of a pottery tray (FIG. 3), which in many ways so closely resembles the pottery soul-houses of the XIIth dynasty that there seems no reasonable doubt as to the relation between them. In the Russian example the tray has a surrounding wall with an opening in front, at the side are water-jars and the figure of a woman kneeling to grind corn at a saddle-quern; all these features are the same in both Egypt and Russia.* Petrie has shown that in Egypt the soul-house developed from the simple tray to the complexity of a two-storied dwelling with furniture; from which it is clear that soul-houses of that type either arose or were elaborated in Egypt. But the Russian examples show that the type had been long enough in Russia to evolve an essential feature of Russian life—the big stove at the entrance. Yet even this may be a modification, possibly a misunderstanding, of the miniature granaries found in the later Egyptian types. A fragment of another soul-house found on the same site (FIG. 4) indicates that the type was not unique.

FIGS. 5 and 6 are two views of a seated female figure in pottery, found on the same site as the soul-houses. This should be compared with the figures in Petrie's *Prehistoric Egypt*, pls. IV, 9; V, 4, 5; VII, 15, for figures leaning backward; and pl. VII, 16, for a figure leaning forward. In both the Egyptian and Russian examples there is the same attitude with outstretched legs, the same beak-like face, the same treatment of the breasts, and where the arms occur in the Egyptian figures the position is the same as in the Russian. In the forward-leaning figure (Petrie, pl. VII, 16) there is the same extension of the buttocks, a detail which was probably necessary to keep the balance of the backward-leaning figure, but quite unnecessary in the Egyptian example. The dating of this Egyptian figure is interesting. Petrie

* Petrie, *Gizeh and Rifeh*, for wall with front opening, pls. XIV; XXII, 60; for water-jars, pl. XXII, 60, 57; for woman grinding corn, pls. XVIII, 118, XXII central on right; for granaries, XXII centre on left.

dates it tentatively only by the shape of the boat in which it was found, but at the same time he says of a similar, though much rougher figure on the same plate, that he would date it to the XIIth dynasty by the pottery.

In the Russian figure the flattening of the back of the head, and the flattened excrescences pierced with holes at the sides of the head, representing ears pierced for earrings, are reminiscent of the pottery-figurines of women—usually called dolls—found in Egypt and dated to the XIIth dynasty, which are known to have a foreign origin.*

Judging by the archaeological evidence Professor Gordon Childe considers that ' on a short chronology the whole Tripolye development would lie within the limits of periods II to IV '. This would coincide with the XIIth dynasty of Egypt, a period to which soul-houses and certain types of female figurines belong. It was a time when Egyptian connexions were with the North. At present those connexions are known as being almost exclusively with Crete, probably because Crete has been well and scientifically excavated and other countries are still unexplored. The archaeological riches of ancient Russia are as yet almost untouched. M. A. MURRAY.

SEA-TRADE IN EARLY TIMES—CHRONOLOGY

When writing my article ' Sea-trade in Early Times ' (September, p. 233), divorce (by enemy action) from works of reference and the difficulty of visits to libraries induced me, after some hesitation, to rely (see note p. 240) upon R. H. Hall's chronology in the *Cambridge Ancient History* for certain dynasties of Ancient Egypt. My attention has been drawn to the fact that Hall's earlier dates are considerably higher than are warranted by recent research. His datings for Vth and VIth Dynasty events should accordingly be reduced by about 400 years, and for the reigns of Sankhkere Mentuhotep and of Amenemhat II by approximately 200 years. Those of subsequent rulers which are quoted are not controversial and remain unaffected. For Babylonian history, following Mr Sidney Smith in *Alalakh* (1940), the dates for Manishtusu and Naram-Sin must be considered to be approximately rather less than 400 years in excess. The present tendency is to reduce considerably the long datings of the earlier dynasties formerly in favour both for Egypt and Babylonia. JAMES HORNELL.

* J. Capart. *Recueil de Monuments Égyptiens*, pl. 66, on extreme left.

ANTIQUITY (1942)

A year ago our editorial notes referred to difficulties caused by the War and the hope of retaining the support of our subscribers. Another twelve months have passed and it is some satisfaction to look back on our fifteenth volume, which is completed with the present number. Each of the four parts has been posted on the appointed day; and though we are aware of a difference between this volume and earlier ones, both in quantity of text and illustrations, it is somewhat an achievement to be still in existence and to have hopes of survival into better times.

Once more we thank all who have so valiantly helped us by remaining subscribers. Since the first spate of cancels we have not suffered as much as might be expected, and it is cheering to have received a modest number of new subscriptions. The real crisis will come next year—as it may in much greater affairs—but we mean to face both with determination. Everything depends on our present subscribers, and though we realize the pressure brought about by drastic taxation we derive confidence from the continued support of past years, and from the fact that it has been consistent for fifteen of them.

The greatest help which can be given is the early renewal of the subscription for 1942, for under present conditions we must have definite information as to the number of copies required. *Bis dat qui cito dat.* In every sense the 'tag' applies, for it means less paper, less postage, and a great saving of correspondence. It needs only this kind of help from subscribers (we do not forget those who already give it by using bank orders for payment) to keep the flag of ANTIQUITY flying for another year amidst the horrors of war.

The usual form is inserted for those whose subscription is paid direct to ANTIQUITY, 24 *Parkend Road, Gloucester.*

Reviews

THE PREHISTORIC FOUNDATIONS OF EUROPE TO THE MYCENAEAN AGE. *By* C. F. C. Hawkes. *Methuen*, 1940. *pp.* xvi, 414, 12 *plates*, 6 *maps and tables*, 27 *text-figures*. 21*s*.

Mr Hawkes is to be commended for a brave attempt to penetrate the outer crust of European prehistory and expose the core of historical truth which it encloses—and too often conceals—a theme to which he brings wide scholarship and a sympathetic understanding. His book is not designed as a text-book and it would not be fair to criticize it as such ; although not pursued quite unwaveringly the dominant aim is one of synthesis and interpretation.

Its scope makes it inevitable that the book will demand close attention, but it must be confessed that the author has not done all he could to render the task of the reader as pleasurable as it might have been. The standard of writing falls short of the theme. Certain faults of perspective arise from the fact that the author has not fully decided on the nature of his audience. While writing ostensibly for a public versed in the facts of prehistoric archaeology, he is never able to forget those, who, in need of instruction, peer into museum-cases. Possibly this is due to the origin of the book which, as the author tells us, grew out of a less ambitious handbook for visitors to the metropolitan museums. Whatever the cause, it has led to the inclusion of information which helps to clog the text without contributing to the high argument. The effect is not enhanced by the style which continues to be torrential without bearing the reader forward on a strong current. A friendly blue pencil to cut out the dead wood and break up some of those overweighted sentences and paragraphs would stand Mr Hawkes in good stead. Occasional flashes of brilliant writing serve only to tantalize. Until Mr Hawkes realizes that words, like coins, are debased by excessive multiplication his views will not achieve the circulation to which they are entitled.

In discussing the increasingly rich material available to the prehistorian Mr Hawkes emphasizes the part played in human life by non-rational motives, above all by the intense desire to increase social prestige. His treatment thus marks a reaction from the economic determinism which colours so much contemporary archaeological writing, lending it an air of reasonableness which it is often far from possessing. To the sociologist, indeed, whether he studies ' primitive ' peoples or his more ' advanced ' fellows, a strictly ' rational ' interpretation of prehistory, in which individuals and peoples pursue their economic advantage in obedience to economic ' laws ', must appear in the light of a travesty

of historical truth. In so far as Mr Hawkes refuses to accept the view that reaction to environmental opportunity is the sole or even, necessarily, the main clue to the development of early cultures, his work deserves a warm welcome, although how far he succeeds in following out his chosen line is perhaps more open to question.

It may be that those who have made a special study of megalithic tombs will differ from Mr Hawkes on many points connected with the evolution and diffusion of the various forms, but in the opinion of the reviewer there is much that is stimulating in his approach to the problem as a whole. Resolutely refusing to treat them as something apart, he endeavours to appraise the significance of megaliths in relation to the early societies which gave them birth; he perceives that their role is neither ' economic ' nor ' religious ' in the modern sense of these terms, but rather a blend of the two. To illustrate the high level of writing which Mr Hawkes can reach in his happier vein, one cannot indeed do better than quote the brilliant passage where he writes of the megalithic religion that it :

> ' was to the main current of westerly trade and adventure a thing as vital as in its own way the Catholic religion was to the Spanish adventurers in the Indies, Mexico and Peru. Aegean religion and exploitation went hand in hand and we cannot doubt that superstition and the awe of great magic was an essential element in mercantile success.'

Equally to be praised is his emphasis on the role of the warrior conception of society during the later chapters of his story, an emphasis which manages to show through some really execrable writing.

In general one would like to commend Mr Hawkes' deep and lively understanding of the true dynamism of cultural history, in which the role of diffusion although important has not excluded the operation of other processes. Thus, in stressing the importance of the Mesolithic substratum for Neolithic and even for Bronze Age Europe, he gives due emphasis to the element of regional conservatism and continuity, an element which tended to grow in importance as settlement became more fixed. It has always been the reviewer's opinion that insufficient attention has hitherto been paid to this question. One reason for this is that the contrast between Mesolithic and Neolithic conditions has been greatly exaggerated, at any rate as far as northwestern Europe is concerned. The contrast between ' food-gatherers ' and ' food-producers ' is one that can easily be over-dramatized, especially when applied to the frontier zones of the ancient world. Consideration of food-habits, nature of settlement and even types of dwelling shows that there was a much broader community between the primitive hoe-agriculturists and food-gatherers of northwestern Europe than is always admitted. Particularly in the more backward parts of the continent, to

which the new arts penetrated late and sometimes in enfeebled form, the Mesolithic pattern was sufficiently well fixed to influence subsequent developments.

Another subject of broad importance handled with insight and skill is that of the relations between Europe and the Ancient East. Mr Hawkes bears witness to the magnitude of the European achievement in recovering a lag of near 2000 years, and in creating a civilization with boundless possibilities of progress. The reason for the eclipse of the old culture-lands he traces to ' the hard mould of urban culture that kept [their] civilization static '. Europeans of recent generations have sometimes tended to forget what we owe to our farming days.

A general criticism of his treatment is that in his anxiety to achieve emphasis Mr Hawkes is sometimes inclined to stress details at the expense of the general picture. Thus, while he expatiates at length on pottery and other artifacts, he dismisses with a mere mention a phenomenon of such outstanding social and economic significance as Skara Brae. Indeed, one might go further and add that he endeavours to interpret European prehistory by a short cut. One may agree with him that economic history is not by any means the whole of history, while still insisting that sound history cannot be written without reference to an economic framework. The reviewer would go further and maintain that, if we are ever to learn how the pre-literate societies of Europe lived, we shall have to concentrate more upon the realities of their daily life and far less upon niceties of the potter's or metal-worker's craft, valuable as these may be for the preliminary work of sorting out the different cultural groups. One has only to compare Dr Bersu's masterly handling of the recent excavations at Little Woodbury with the conventional ' Report ' and its meticulous treatment of trivialities (often expensively illustrated) to realize how deep is the gulf between those who aim direct at the conditions of life itself and those whose main preoccupation is with its trappings.

Of the illustrations one can say that they reach a standard higher than is sometimes found in archaeological works, although it is rarely that they pass the level of competence. Despite the trouble that has evidently been taken with the folding tables it can hardly be claimed for them that, like good diagrams, they appeal to the eye : to one reader at least it required a real effort of will to face the lettering. If the tables were more attractive one would have to complain that they are not more effectively referenced in the text. The bibliographical notes are better than usual and there is a full index. As a final word one may say that, while Mr Hawkes' book is not for everyone, it is emphatically a book to read if you would know what one of our leading prehistorians of the younger school is thinking. It is good to know that one who occupies a key position in British archaeology is as richly stored with learning as this book shows him to be.

GRAHAME CLARK.

THE IBERIANS OF SPAIN AND THEIR RELATIONS WITH THE AEGEAN WORLD. *By* PIERSON DIXON. *Oxford University Press*, 1940. *pp.* XII, 160, 24 *plates*, 3 *figs.*, *map.* 8*s* 6*d.*

Mr Dixon went to the Foreign Office already an Aegean archaeologist as well as a scholar and critic of the arts, and he devoted the spare time of his three years at Madrid before the Civil War to studying the history, archaeology and art of the ancient Iberians, and their Aegean relationships. This book is a miniature of a larger work which was stopped short in the printer's hands by the events of July 1936, and as such naturally abridges much detailed discussion and presentation of material, for which we must await that work's ultimate appearance. Meanwhile, what he calls ' the present abbreviated survey ' conveys a faithful impression of fuller researches in the background, and is at the same time a well-planned whole with individuality of its own. This historical account of the Iberians passes over their earlier prehistory rapidly, but brings the reader to the Iron Age with a clear notion of the ethnic and cultural contrast between these ' Mediterranean ' immigrants into southern and eastern Spain from North Africa—their still unelucidated language may be akin to Berber—and the Peninsula's older inhabitants, apparently known to ancient literature as Ligurians. The Celtic invaders who in the 6th century B.C. pushed across the Pyrenees into the centre and west provide of course a further contrast, which thereafter sharply defines the Iberian provinces proper, along natural inland frontiers. The Celtiberian regions of cultural overlap in the centre are really Iberianized Celtic, and their culture is here only indicated and not described ; the possibility that the Iberian culture of Catalonia owes some of its provincial character to an earlier Celtic substratum, which Bosch-Gimpera believes was contributed by Urnfield immigrants about 900 B.C.,* might have been indicated also.

The upheavals of the late second millennium B.C. from the eastern to the central Mediterranean brought about an undoubted renewal of the Iberian sea connexions of Early Aegean times, but Mr Dixon does not believe that this led to the Phoenicians arrival and foundation of Cadiz until some three centuries after the traditional date of 1100 B.C., and he is sceptical of Schulten's account of Tartessos, regarding it as a region and not an Iberian capital at the mouth of the Guadalquivir. At any rate, Phoenician activities did little for Iberian culture, and it was not till the early 6th century that its great age began with the establishment of the first trading colonies by the Greeks. For it was to Greek influence that Iberian higher civilization was everywhere mainly a response, and even when at the beginning of the 5th century all Andalusia fell to the power

* Prof. Bosch-Gimpera's Rhŷs lecture on the Celts in Spain is due for publication by the British Academy shortly.

of Carthage, Greek commercial and artistic currents continued to penetrate Iberian culture, there as well as in the more easterly regions where they could spread directly from the Greek trading posts founded meantime from Massalia. Of these the chief was of course Emporion, near the Pyrenean end of the eastern seaboard, the rise of which reflects the northward shift of Greek colonization in face of the Carthaginian advance and the results of the sea-battle with the Etruscans at Alalia in 535. Incidentally, one of those results may possibly have been actual Etruscan lodgments (by arrangement with Carthage) on the more southerly Iberian coasts. Needless to say, what attracted all these seafaring peoples was primarily the Peninsula's wealth in metals, which like the Romans after them they did all they could to exploit. Iberia was also exploited as a source of mercenary soldiery, on which Mr Dixon has an interesting chapter, reminding us incidentally that the famous Iberian sabre was modelled directly on the *machaira* of classical Greece.

To the archaeologist, the Iberians most striking response to Greek influence is undoubtedly their vase-painting, which Mr Dixon describes successively in the three main provinces of Andalusia, the southeast, and the east up to the Pyrenees. He well shows how reaction to late-archaic, east Greek, and later red-figured Greek work produced regional and period styles of marked individuality and character. The Iberian vase-painter was no mere copyist, and both in the universal linear, floral, or vegetal schemes which were his basic convention, and in the animal and human designs of the most developed southeastern and eastern styles, his taste and vitality maintain a strong native flavour. The vivid monsters of the Elche-Archena school, and the charming dance and battle scenes of the Liria vases, each show an art essentially decorative in purpose, which the figures, interspersed always with purely ornamental flourishes, never sacrificed to narrative or representational interest, while remaining in themselves delightful and vigorous. In sculpture, this Iberian bent for design rather than form showed itself in a choice of pictorially rich subjects like the elaborately apparelled priestesses of the Cerro de los Santos or the famous ' Lady of Elche ', or such decorative beasts as sphinxes, lions, or bulls, with features apt for treatment by ornamental convention. The sculpture was originally painted, and particularly in the priestess statues, with their opulent ceremonial costume, headdresses, and jewellery, forms an outstanding embodiment of real Iberian taste. Yet its inspiration was in origin Greek, as appears more clearly in some of the numerous bronze statuettes, from Despeñaperros and elsewhere, and Mr Dixon also illustrates some of the true Greek sculpture from the admirable Catalan excavations at Emporion.

In the ornaments (mostly of precious metal) of which they were so fond, the Iberians were much more strongly influenced by Phoenician and Carthaginian

styles. Not much is known of their architecture, but they copied Greek methods of masonry and something even of the classical architectural orders, and in their funerary building the old idea of the chamber tomb emerged (with cremation) in the Iron Age in a form which seems very largely influenced by the tombs of the Etruscans. At their religious sites, originally natural groves or caves, temples of dry-stone masonry were occasionally built after the Greek fashion. Houses were built of dry-stone or clay-filled masonry or sun-dried brick, and by the 3rd century B.C. regular town-planning was developing, with fortifications of some complexity. Bastions of Greek type (as at Emporion) were used in the hill-fort defences of Mongó (see ANTIQUITY, 1929, III, 188–94).

The characteristics of Iberian culture seem to have succumbed very easily to Romanization, and contributed to nothing like the Romano-Celtic culture we know further north. But of the four centuries of their vital contact with the Greek world Mr Dixon has given us an excellent—and happily inexpensive—summary. C. F. C. HAWKES.

SPANISH ROMANESQUE ARCHITECTURE OF THE ELEVENTH CENTURY. *By* W. M. WHITEHILL. *Oxford University Press*, 1941. *pp.* XXX, 307, 121 *plates*, 117 *figs.*, 3 *maps*. £3 3*s*.

The interest and value of the early Romanesque architecture of Spain may, to a certain extent, be judged by the controversies to which it has given rise; controversies in which the foremost art-historians of France, Spain and America have taken part.

The first general survey of medieval architecture in Spain was due to Don Vincente Lampêrez, whose work, though produced as long ago as 1908, still remains an indispensable introduction to the subject. Dr Joseph Puig furthermore has dealt exhaustively with the Romanesque of Catalonia in a work which is never likely to be superseded. In the volume under review, the author, while covering the whole field, has confined himself to the earlier part of the full Romanesque style, but dealing, of necessity, with those 'first Romanesque' churches which preceded it, in the province of Catalonia.

Dr Whitehill acquired his first love of the subject under the late Professor Kingsley Porter, and his intimate knowledge of the buildings during a residence in the country extending over several years. The results of this love and this experience, aided by a very extensive knowledge of the documentary evidence, is now before us and we may congratulate the author on a production which is at once authoritative, complete and readable.

The recently published studies of M. George Gaillard have done much to resolve finally the long disputed dating of early Romanesque sculpture in Spain, and to assign its proper place alike to the acknowledged initiatory influence of

France, and to the highly individual elements which were contributed by the Spanish people themselves. This book, we feel, should be read in conjunction with Dr Whitehill's, as our author relies largely on M. Gaillard's admirable illustrations to supplement his own equally admirable photographs.

Dr Whitehill deals first with the historical setting of his subject, passing on in the second part to the ' first Romanesque ' of Catalonia (which covers the 11th century) and in the third part to the Romanesque of the other provinces of northern Spain. It will be a revelation to many to discover the extreme richness of Catalonia in little altered work of this period, not only in the major churches but also in the countless village-churches scattered over the countryside.

In some of the major buildings recent excavations have thrown an entirely new light on their structure and development. This is particularly true in regard to the abbey of S. Michel de Cuxa, S. Isidoro of Léon, and S. Domingo de Silos, though in the last case, unfortunately, the report has not yet been published.

Dr Whitehill deals exhaustively with the church and cloister of Silos and it is here, perhaps, that his conclusions will be read with the greatest interest. The long controversy over the dating of the various parts, and in particular over those of the amazing cloister and its sculptures, may well rest here, for Dr Whitehill states the evidence in a way which may be accepted by both parties as both reasonable and in accordance with the known facts. He does not however commit himself to an exact date for the work of the first (and greatest) master of the lower cloister, but places it between the years 1088 and 1158, with a personal inclination towards the earlier date. We feel that the more reasonable alternative is to place it after rather than before the Puerta de las Vergines, which is assigned to the first decade of the 12th century. The work is much more primitive in the doorway, and it is unreasonable to suppose that so great a master as he of the cloister should have had no influence on his immediate successors. Indeed we know that this was not so, as the influence of the first master is in fact sufficiently apparent in the work of the second master who worked on the cloister.

We have dealt at some length with this particular point as it is the most controversial in the book and the author does not himself express more than a preference.

Dr Whitehill's other sections deal with all the major and many of the minor examples of the country under review, and it is astonishing to be confronted with buildings such as the lovely ruin of S. Pedro de Arlanza, or the imposing fortress church of Loarre, which are still comparatively unknown. One is furthermore impressed with the early Spanish mastery of a style which was then a comparatively recent introduction into the country.

The book can be thoroughly recommended not only to all students of Romanesque, but also as a full and masterly study of one aspect of the history of a people emerging from an age-long backwater existence into the full stream of European life.

We have referred above to the admirable photographic illustrations; in addition the book is provided with an excellent series of plans and diagrams which incorporate all the latest information, and there is a full and efficient index. The production is in every way worthy of the Oxford University Press.

A. W. CLAPHAM.

THE SOCIAL AND ECONOMIC HISTORY OF THE HELLENISTIC WORLD. *By* M. ROSTOVTZEFF. *Oxford: Clarendon Press*, 1941. 3 *vols.*, *pp.* 1779 *and* 112 *plates.* £5 5*s.*

To most people who have enjoyed a classical education, influenced directly or indirectly by the Oxford 'Greats' curriculum, the Hellenistic Age is a painful blank. The history of Old Greece after 323, and of the new domains won for Hellenism by Alexander, is treated at best as the background to certain episodes in Roman history. Yet the period is one of transcendant significance. In science for example it witnessed the culmination of Classical theory, the final absorption therein of the real achievements of Oriental mathematics and astronomy, and the crystallization of the tradition by which both have been transmitted to us through the Arabs and Byzantines. Its neglect is perhaps due to the lack of contemporary histories comparable in quality to Herodotus, Thucydides and the Athenaion Politeia, both as models of classical prose and subjects for historical criticism. In fact the most reliable documents on the period have not been inherited from the Middle Ages, but have been recovered by archaeologists' spades—inscriptions, papyri, town ruins, the actual products of applied science and the articles of international trade. These documents are abundant and often more illuminating than the texts of ancient authors. But they are widely dispersed and known only to a limited range of specialists.

Prof. Rostovtzeff's mastery of this material—particularly the least accessible, the papyrological—guarantees the value of his three imposing volumes. His personal familiarity with the relics from South Russia and with Russian literature can be used with exceptional felicity in just this period. As in the companion work on the Roman Empire, admirably selected plates, each faced by a page of explanatory text, both familiarize the reader with archaeology's contribution to history and enliven the narrative. Incidentally archaeologists working in quite different spheres will be indebted to the author for making available documents otherwise difficult to find, for instance the scene in a third-century corn mill on a Megarian bowl.

At first sight the Hellenistic world presents an attractive aspect. Archaeology has laid bare and brought to life the Hellenistic cities ; Priene, Pergamon, and Delos are more fully known at this age than any classical city. With their well-planned streets, handsome public buildings and commodious dwellings all adorned with works of art, they look desirable abodes, and Rostovtzeff's plates do justice to their charms. We think of such *poleis* with all their amenities spreading to the Tigris and Susiana, indeed right to Turkestan and India. The scientist gratefully recalls the research institutes and schools of Alexandria, Pergamon and Cos, and the efflorescence of theoretical discovery unparalleled till the 18th century. No less respectfully do we admire the applications of theory in technical inventions, again comparable only to those of the 18th century—the donkey-mill, the water-mill, the Archimedian screw, glass-blowing (I can find no satisfactory evidence for the donkey-mill or any other application of rotary motion in milling before 300 B.C., despite the deductions of philologists to whom relics actually unearthed are evidently just embarrassments).

Rostovtzeff unfortunately has nothing to say of the Hellenistic Greeks' pure science, but as an archaeologist is appreciative of their technology. He even credits them with many innovations—not only in siege-engines, but even in road-building—usually regarded as Roman. The business letters recovered by papyrologists give an exciting picture of the enrichment of Egypt through the application of Greek agricultural science and Hellenistic mechanics to the Egyptian countryside in the planned economy of the early Ptolemies. Rostovtzeff even attributes to them the initiation of the iron age in Egypt ; ' so extensive a use of iron in Egyptian agriculture was almost tantamount to a revolution '. But at least in the cities iron had been fairly common since 663. If less radically, productivity must also have been greatly enhanced by the introduction of scientific agriculture in Asia.

Of course almost continuous wars and frequent piratical raids made life insecure and dissipated much wealth. But on the whole our first impression of Hellenism is a society as ' progressive ' as that of 19th-century Europe. From our author the reader, familiar with earlier works, might then expect to read how the bright landscape was gradually overcast by the menacing shadow of a Rome whose sole native industry was usury.

Instead Rostovtzeff takes us behind the fair façade. With the aid of hints in petitions, royal edicts and private letters he gives us glimpses of the Egyptian ' natives ', the peasantry on whose labour the prosperity of the Greek bourgeoisie and the leisure of scientists and artists in the cities were based. No doubt the legal status of the natives was bettered by the substitution of contractual obligations for the customary duties of pharaonic times. But perhaps the natives preferred pressure exercised by ' rulers who were their compatriots, who spoke

their own language and had the same religion and mode of life ' to that of a ' bureaucratic machine in which foreigners played the most important part, foreigners who regarded themselves as far superior to the natives, who did not speak their language and had no intention of learning it '.

That might seem an inference based upon the experiences of contemporary European imperialists rather than upon the recorded sentiments of the illiterate Egyptian peasantry. But the latters' known behaviour is quite consonant with it, and two quotations from newly discovered texts given in the *addenda* afford striking confirmation of the hypothesis. In any case the fate of Ptolemaic economy in the 2nd century is adequately documented. We see the country divided between two groups ' one privileged and largely foreign ', the other ' treated as a mere source of revenue '. The bureaucratic machine has ' become indurated and developed an inflexible routine '. All humane edicts of the kings were nullified by the corruption of officials (a corruption which might have been illustrated just as well by texts from the New Kingdom). The Rosetta Stone itself implies in 196 B.C. ' pressure of taxes, rapid accumulation of arrears and the concomitant confiscations, prisons full of criminals and public and private debtors, many fugitives scattered all over the country living by robbery, compulsion applied in every sphere of life '. The natural consequences were ' scarcity of labour, a gradual depopulation of the villages, abandonment of fields, deterioration of land, neglect of dykes and canals '.

In Asia there is less material for assessing either the depth of Hellenization or the intensity of the class division colonization may have produced. Rostovtzeff regards the revolt of Judas Maccabaeus as representing ' the ideals of the large mass of the natives, a class neglected by the government and exploited by the city bourgeoisie '.

In old Greece and Asia Minor similar symptoms are discernible. The author reminds us that the fourth century prior to Alexander had been characterized by two main features—' the lapse of the mass of the population into proletarianism, and a shortage of food-stuffs '. As the principal cause he suggests the tendency of industry to export itself instead of its products, illustrated in the archaeological record by the replacement of pottery, imported from Old Greece in the 6th and 5th centuries into South Russia and Italy, by locally made substitutes and imitations.

Alexander's conquest relieved the situation. The new *poleis* in Asia and Egypt provided an outlet for the surplus population and new markets for the old industrial centres, as the distribution of Greek pottery again illustrates. But once more the products of Old Greece were soon ousted from the new markets by local wares,—the revival in the Orient of native industries fertilized by Greek techniques and methods of organization, and the establishment of

similar industries in the West and North. In other words the expansion of the external market was only temporary.

Meanwhile the internal market shrank ' owing to the impoverishment of the middle classes '—would it not be more correct to say ' owing to the concentration of purchasing power into fewer and fewer hands '? In any case the position of the proletariat worsened. Piracy and wars, waged with such fury that whole populations were enslaved, replenished the slave market. No wonder that ' tarachai ' (demands for cancellation of debts and re-division of the land) became more frequent than ever. And from 134 we hear for the first time in antiquity of formidable slave revolts—Attica, Delos, Pergamon, Macedonia, Italy, Sicily.

The principal beneficiaries of the improvements of the Hellenistic Age had in fact been the ' bourgeoisie '; ' landowners whose land was tilled by tenants, hired hands or slaves ; tenant farmers employing the labour of the latter classes ; owners of workshops, directing their employees, slaves or freemen ; owners or tenants of shops, ships and warehouses ; money-lenders and slave-hirers '. Rostovtzeff points out that in Cos and all over Greece the number of peasants who farmed their own land was declining, to make room for capitalistic farms. Many of the citizens of Priene, whose houses we admire so much, must have lived on the proceeds of such. None of the Hellenistic ' contractors at Delos worked himself as those of Athens, Delphi and Epidaurus had done in the 5th and early 4th centuries '.

To this bourgeoisie Rostovtzeff is very sympathetic. He does not ask how far the decline of Hellenistic economy—here frankly depicted—was due to the fundamental antinomy between city and country, bourgeoisie and working-class, on which he himself insists. Now the radical economic innovations of the Iron Age, most fully realized in Greece, had been on the one hand the emergence of industry producing popular consumption goods, on the other the emancipation of the small peasant and the small craftsman due to cheap iron tools and consummated by the introduction of small change in the 6th century. At least in the democracies of the 6th and 5th centuries the latter constituted a potential internal market for the former.

Was it the replacement of the small workshop by the *ergasterion* manned by slaves, of the peasant holding by the capitalist farm that destroyed the internal market ? In other words do not the economic and social evils so tragically manifest in Hellenistic times result directly from tendencies at work in Classical Greece, from the moment the cities grew rich enough to afford slaves in any numbers ? When ' the limits of the oikoumene had been reached ' by the Roman enlargement of the Hellenistic economic system, the issue became inescapable and has been raised by Rostovtzeff himself. But is it necessary to wait till the time of Hadrian to raise it ?

V. Gordon Childe.

BULLETIN OF THE AMERICAN SCHOOL OF PREHISTORIC RESEARCH, No. 15, May 1939. *Edited by* GEORGE GRANT MACCURDY, *Director. Office of the School, Old Lyme, Conn., U.S.A. pp.* 126, *illustrated.*

The School's expedition of 1938, here recorded, was led by Miss (now Professor) Dorothy Garrod, assisted by James H. Gaul and Bruce Howe of Harvard University. Its aim was to find Palaeolithic sites in Anatolia, but the obtaining of the necessary Turkish official authorization delayed reconnaissance, and expectation of a like delay over getting leave to excavate on the most hopeful site (Tuz Gölü) eventually decided Miss Garrod, with the hot weather coming on, to abandon the idea of immediate further work. The reconnaissance is carefully reported, with map and photographs, and the few finds of implements, fossil bones, and Chalcolithic and later ' hüyük ' pottery duly published (the latter by Gaul). One must hope that the start so made will have some more fruitful sequels in the course of time.

The expedition then moved to Bulgaria, where the Editor of ANTIQUITY had advised Miss Garrod of the existence of many likely-looking caves. Here there were no permit difficulties and the party were soon beginning trial operations at the cave of Bacho Kiro, in the Stara Planina or Balkan mountains near Drênovo, whence Upper Palaeolithic flints and cave-bear bones had been obtained by the local spelaeologist D. Bachev. The cave was mapped, and consideration of the problem presented by Bachev's finds, which had come from deep in the extensive inner galleries, leads to the hypothesis (presented by Howe) that this material was redeposited from elsewhere in the cave by the action of water. The implements are finely-worked pointed blades, and seem to be some kind of Solutrian, but the industry was not present in the stratified deposits trenched by the expedition itself. These were directly inside the cave mouth, and yielded a sequence of eleven strata, of which the lowest two (L, K) were Mousterian, with implements mainly in quartzite. The next (J) opened the Upper Palaeolithic series with a ' Middle ' Aurignacian industry, in flint, with typical rostrate and rounded scrapers ; above it was something like a metre of sterile sand and cave-earth, but the next two strata (F, E) produced what is probably a retarded facies of the same culture (not Gravettian), and the two next (D, C) one still Upper Palaeolithic but not more closely definable.

An exhaustive and most carefully detailed report on the fauna (with interesting remarks on Pleistocene horses) is contributed by Dr R. Popov, Director of the National Museum at Sofia, who was the first to recommend the expedition to Bacho Kiro.

The clear and beautifully illustrated main report is followed by Miss Garrod's comparative observations on the finds, which with all their scholarly caution make it clear how much Palaeolithic studies should owe in the future to

extended excavation in the Balkans. The primary place of the ' Middle ' Aurignacian in the Upper Palaeolithic sequence of this region is of course in happy accord with her thesis of its entry into Europe this way from Hither Asia, first given in her British Association address of 1936 (republished in 1938 in the *Proceedings of the Prehistoric Society*). If the American School is able to send further expeditions to this quarter after the war, more light on the advent of Upper Palaeolithic man in Europe seems bound to follow.

C. F. C. Hawkes.

ON DATING OLD HORSE-SHOES. *By* Gordon Ward. *Hull Museum Publications*, no. 205, 1939. *pp.* i–v, 140–177, 8 *plates.*

In this pamphlet, reprinted from *Transactions of the Lancashire and Cheshire Antiquarian Society*, liii, Dr Gordon Ward describes the Hull Museums' collection of ancient horse-shoes, and puts forward a standard or ' scheme ' by which the age of old horse-shoes may be judged. The illustrations are good and the material presented useful for its own sake ; the author's style is brisk and trenchant, and his ' scheme ' certainly marks some advance in the matter. For the Saxon and Norman periods, for instance, he is more cautious than his pioneer predecessor Dr R. W. Murray, to whom he nevertheless owes much. But for all that he may be over-bold. His classing of the type of shoe with counter-sunk nail-holes and ' wavy ' outline as a ' Celtic or Romano-British group ', the ' Iron Age Horse-shoe ' of his subsequent paper in the *Antiquaries Journal* (Jan. 1941) xxi, 9–27, has been shown by Major Ward Perkins (ibid. April, 144–9), to be open to serious question ; this type lasted well into the Middle Ages, and there is at present only one effective first-century example (that from Colchester). His classification as a whole remains coherent and often cogent, and will certainly be of use when someone undertakes a further study of this rather tantalizing subject. Mr T. Sheppard of the Hull Museums contributes a foreword illustrating and discussing the Romano-Celtic hippo-sandal, perhaps really a hobble to prevent horses from straying. C. F. C. Hawkes.

Index

Aaron (saint), 339, 340, 341, 342, 343, 344, 359
A-bar-gi, grave, 362
Abd er-Razzak, 255
Aberdeen, rabbit-warren, 376
Aber Henfelen, 310
Abermelc, 85
Aberystwyth, 184
Abomposu, 86
Abu Zaid, 250
Acanthus frieze (*illus.*), 135
Aden, trade, 248, 255
Adonis, 48, 49
Aegean archaeology, 12
Aelfgifu Emma, 141
Aelfric, bishop of Ramsbury, 353
Africa, barbs and arrowheads, 328
 Circumnavigation, 245
Agatharcides of Alexandria, 248
Agen, 345, 346
Aidan (saint), 131
Air-photographs, Verulamium (3 *plates*), 120
Ajax, shield of, 13
Akkad, 171
Alban (saint), 337–59
 Chapel dedicated to, 340
 Cult, 344, 353
 Festival, 346, 352
 Martyrdom, 346, 347, 348
 Passion, 337, 340, 344, 345, 349, 353, 354
Albinus (saint), 338
Aldborough, cross, 131
Alderbury, 39
Aldro, barrow, 82
Alexander the Great, 9, 222, 246
Alexandria, harbours (*illus.*), 209–18
Alfred the Great, 341
Alhagen, writer, 264
Allat, goddess, 48
Allen, George, 89
Almgren, O., 370
Alpes Maritimes, rock-engravings, 64
Alphabet, introduction, 12, 14
Amber trade, 369
Ambre, 39
Ambresbury, 306
Ambrones, 84
Amenemhat II, 241, 386
Amenhotep III, 55
America, Mesolithic immigrants, 325
Amesbury, 39
Amphibalus (saint), 353, 354, 355, 356, 357
Amrum, 84
Anau, 196
Ancus Martius, 230
Anglo-Saxon charters, 295–8
Ankhu, 209
Antioch, 103
Antirrhodus, island, 216
Antium, 226, 228
Anuradhapura, 244
Anyang, 54
Aphrodite, 48
Apologos, 249, 254
Arbor Low, 313
Arch, Roman use, 226
Archaeology and civilization, 2–14
Arminghall, 313
Arpachiya, 7, 174
Arrhenius, O., experiments in soil analysis, 382–3
Arrow barbs (*illus.*), 325, 326, 328, 329
 Heads, 328
Arthur (king), 270, 272, 281, 318, 360
'Ash, deity, 384
Athens, harbours, 223–6
AUDEN, G. A.; Dead-fall traps, 199
A-ur, harbour, 209
Aurelius Ambrosius, 40, 306, 317, 318
Auxerre, 347, 348, 350

Avallon, 308
Avebury, 44, 313
 Place-name, 33
 Stone circles, 308
Avilion, 360
Axe-hammers, Presely stone, 307
Aycliffe, cross, 130
Azilian barbs (*illus.*), 323, 324

Babylon, sea-trade, 248
Babylonia, diorite statues, 236, 238–9
Bactria, Greek influence, 92–4
Badbury barrow (Dorset), 83
 Camp (Wilts.), 40, 43
 Hill (Berks.), 40
 Rings (Dorset), 40
Badby, 40
Badda, 40, 41
Bamun tribe, 77
Baoule tribe, 77
Barbs (*illus.*), 321–36
Barbury, 41, 44
Barge of Amon, 243
Barrows :—
 Aldro, 82
 Badbury, 83
 Calais Wold, 82
 Charlton Down (*illus.*), 82
 Colwinston, 152
 Cowlam, 81
 Crichel Down, 154
 Deverel, 314
 Elworthy, 154
 Emst, 52
 Ganton, 81
 Gristhorpe, 365
 Homeric, 363
 Hove, 366
 Hvidegard, 370
 Kivik, 368
 Llantwit Major (*illus.*), 142–61
 Lugbury, 38
 Millborough, 36
 Redbourn, 356
 Ritual, 142–61
 Scrubbity, 366
 Sheeplays, Llantwit Major, 148, 158
 Six Wells, Llantwit Major (*illus.*), 142–61
Barrows, *continued* :—
 Villfara, 368, 370
 Wiltshire, 36, 37
 Winterbourne Stoke, 365
Barth, Henry, 79
Baruh, 255
Barwick in Elmet, cross, 140
Basra, 254
Battle-axe, 198, 199, 369
 Ras Shamra, 91–2
 Spread of, 68–9
Battle-axe folk, 50–70, 95, 107–8
Battlebury, 44
Bau, goddess, 238
Baumber, 40
Beakers, Gawra, 164
Bear, survival in England, 41
Bec, monastery, 341, 343
Bedborough, 36
Bede, 339, 344, 348, 350, 353
Bedja, shipbuilder, 209
Bedwyn, 316
Beech Bottom dyke, 115
Beli, 340
Bellinus (king), 273
Benin, 71, 72, 74, 75, 77
Beorg, meaning, 36, 37
Beorh, application, 36
Bera, 41
Beranbyrig, 41
Berenice, harbour, 216
Bertram, Charles, 271
Beverley, boat-shaped coffins, 365
Bharukaccha, port, 247
Bibury, grave-stone (*illus*)., 135
Bicknell, R. C., 113
Bilbury, 40
Bindings, designs, 137
Birs Nimroud, 248
Black Barrow Hill, 36
Blades, cutting (*illus.*), 331–6
Bleasdale, 313
Boat burials, 360–70
 Carvings (*illus.*), 364, 368
 of the Dead (*illus.*), 360–70
Boats, gold, Nors, 369
 Petroglyphs, 234–7
 Villfara, Scania, 368

Bobo tribe, 77
Bodleian library, Caedmon MS. (*illus.*), 137, 138
Boghaz Keui, Hittite archives, 8
Bohuslän, 52
 Rock-engravings, 64
Bone points, 324, 325, 333, 334
Boniface (saint), 338
Bonn, 338, 358
Book of Cerne, 133
Boro Budur, sculptures (*illus.*), 252
Borough, in place-names, 36
Bosumpra cave, 86
Bosworth psalter, 138
Bovill, E. W., 79, 80
Bran Fendigaid, 309, 310, 311
Branwen, daughter of Llyr, 309-10, 312
Breakwaters, construction, 227–8
Breedon on the Hill, cross-shaft, 129
BRENTNALL, H. C., Wiltshire place-names, 33–44
Breuil, Abbé, 366
British king lists, 274–86
Brittany, boat-carvings, 365
Brixton Deveril, 40
Broach, port, 247, 255
Brochamburg, meaning, 38
Brochvail, 340
Broham berg, 37
Brokenborough, 36, 37, 38
Brøndsted, J., 58, 132
Bronze Age, 9, 10, 11
 Boats of the Dead, 360–70
 Circular ritual structures, 313
 Cults, 312, 313
 ' Henge ' sites, 313, 314
 Hoard, Stuntney Fen, 82, 83
 Hungary, 298–301
 Urn-field, 371
Bronzes, Nigerian (*illus.*), 71–80
Brough, Roman theatre, 115
Brundisium, 226, 262
Bruts (Welsh), 273, 274, 282, 285
Brutus, 271
Buchan, 376
Buchier, William, 6
Buckley, Francis, 329, 330
Budbury, 40
Budge, Sir E. W., 362
Buittle, place-name, 86
Bulgaria, palaeolithic remains, 399–400
Bura tribe, 77
Burhs names, 38–40
Burial customs, Denmark, 108, 109, 111, 112
Burkitt, M. C., 290
Burlinch Hill, 37
Burnishing stones (*illus.*), 199–200
Burton, Richard, 78
Butler, H. E., 315
 Morris, 373
Bythin, 64
Byzantine art, Roumania, 304

Cada, 41
Cadas, 41
Cadley, 41
Caedmon MS., Oxford (*illus.*), 137, 138
Caerleon, 339, 340, 343
 Lordship, 341
Caerwent, excavations, 114
Caistor by Norwich, Roman temples, 121
Calais Wold, barrow, 82
Calicut, port, 255
Caligula, 228
Cambridge, psalters (*illus.*), 139, 140
Canal, Middle Empire, 245
 Nile–Suez, 217, 241, 242,246
Canals, Rome, 231, 232
Candida Casa, see of, 85
Canoes, dug-out, 365
Caprasius, martyr, 346
Carchemish, 7
Cardiff, rabbit-warren, 372
Carn Meini, 307
Carpini, Pian de, 6
Cart-wheels (*illus.*), 66
Casket (Franks), 130, 131
Cassius (saint), 338, 358
Cassivellaunus, 115, 310
Castagnol, E. M., 383
Catalonia, architecture, 394
Catamarans, 287
Cauldrons, Iron Age, 312
Cavalry, early use, 54, 55
Ceawlin, 43
Celtic temple, Verulamium, 115, 116

Cement, Roman use, 226
Cemetery :—
 Harappa, 294
 Loanhead of Daviot, 314
 Roman, Caerleon, 339
 Verulamium, 116
Centum Cellae, harbour (*illus.*), 228, 231, 232
Cerdic, 43, 44
Cerne, 315
Ceylon, trade, 250, 251
Chagar Bazar, 7
Chalice ware, 168
Chambers, R. W., 269, 273
Chandragupta, statesman, 250
Chanhu Daro, 240
Chank, Indian, 239, 240
Chariots, antiquity, 196–8
 Use and types, 54–9
 War, 94–6
Charlbury, 36
Charlton Down, barrow (*illus.*), 82
Charon's ferry, 360, 363–4
Charters, Anglo-Saxon, 295–8
Chavakam, trade, 250
Cheng Ho, 255
Chertomlyk, tumulus, 50
Childe, V. Gordon, 53, 155, 370, 386
 The History of Civilization (review), 1–14
 Horses, chariots, and battle-axes, 196–9
 Rock engravings, Scotland (*illus.*), 290–1
 Reviews, 90, 94, 100, 203, 292, 298, 395
China, trade, 254–6
Chisbury, 40
Chiseldon, 40, 42
Chosroes, king of Persia, 76
Christchurch (Usk), 341
Chronology, Mesopotamian, 11
 Egypt and Babylonia, 386
Church, re-consecration, 316
Chute, 41
Cirencester, 43
 Roman, 114
Cire perdue casting, 74, 75, 77
Cists :—
 Denmark, 108, 109, 110
 Fowey, 155
 Grooved stone (*illus.*), 81–3
Cists, *continued*:—
 Kivik, 368
 Llantwit Major (*illus.*), 149–55
 Ri Cruin, 81, 83
 Scilly Isles, 81–3
 Scotland, 81–3
Civilization, 1–14
 Mesopotamia, 162–75
Civita Vecchia, harbour, 232
Clapham A. W.; Review, 393
Clark, Grahame, 196, 197, 198
 Horses and battle-axes (*illus.*), 50–70
 Review : 'Prehistoric England', 202–3
 'Prehistoric foundations of Europe', 388–90
Claudius, 230, 231
Claydon, spelling, 193
Cnut, portrait, 141
Cofferdam, Roman use, 226, 227
Coffins, boat-shaped, 365, 366
 Wooden, 81
Coifi, 316
Colchester, Roman theatre, 115
Cologne, St. Alban's church, 338
 St. Pantaleon's church, 338
Colwinston, barrow, 152
Commodus cult, 315
Concrete, Roman use, 226
Constans (prince), 354
Constantine (king), 354
Constantius Chlorus, 344
Constantius of Lyons, 337
Conti, Nicolo, 256
Copper, 78, 79, 239
 Value of, 10
 Working, 168
Coptos, 216
Corbridge, excavations, 114
Corder, Philip ; Verulamium (*illus.*), 113–24
Cosheston, sandstone, 307
Cottrill, F., 117, 121
Cowlam barrow, 81
Crawford, O. G. S., 81, 120
Creech barrow, 36
Cremation, 111, 112
 Burials, 82, 149–54, 158
Crete, boat-burials, 363

Crichel Down, bucket urn, 154
Cross Canonby, 130
Crosses :—
 Aldborough, 131
 Aycliffe, 130
 Barwick in Elmet, 140
 Breedon on the Hill, 129
 Cross Canonby (*illus.*), 130
 Derby, 129, 132
 Durham (*illus.*), 130
 Easby, 131
 Ellerburn, 129
 Folkton (*illus.*), 129
 Gainford, 129
 Gosforth,127
 Isle of Man, 127
 Middleton (*illus.*), 129
 Northumbrian, 84
 Nunnington, 129
 Otley, 127, 128, 140
 Pickering, 129
 St. Ninian's cave, 85
 Sinnington, 134
 Sockburn on Tees (*illus.*), 128
 Staveley, 140
 West Gilling, 134
 Whithorn, 85
Crowfoot, J. W.; A temple of Adonis? 45–9
 Review, 304
Crozon, urn, 157
Cult of the Dead, 49
 of vegetation, 48–9
Cumae, 228
Cunningham, settlement, 83, 84
Cunobelin, 280
Currency bars, 87–8
Curwen, E. Cecil; Burnishing stones for pottery (*illus.*), 200–1
 Impressions of grain on pottery (*illus.*), 199–200
 More about querns (*illus.*), 15–32
 Some food-gathering implements (*illus.*), 320–36
 Reviews, 202, 203
Cuthbert (saint), 85, 88–9
Cynric, 44
Cypris, 49
Dagger blade, Ullstorp, 51
 Tutankhamen, 96
Damerham, 41
Danelaw art, 125, 126
Danish art, 125, 126, 127, 129, 133, 134, 141
Darfur, copper mines, 79
Darius, 246
Darlington, R. R.; Review, 295–8
Davey, Norman, 116
Davies, Walter, 374, 376, 381
Dead, boat of the (*illus.*), 360–70
Debal, port, 255
Delai, port, 255
Denmark, 105–12
Derby, St. Alkmund's cross, 129, 132
Desborough mirror (*illus.*), 263
Deverel barrow, Dorset, 314
Deverel–Rimbury urns, 154–5
Dillwyn, L. W., 374
Dilmun, 238
Dinocrates, engineer, 216
Diorite statues, Babylonia, 236, 238–9
Dobson, J. F., Review, 92–4
Dolerite, spotted, 307, 308
Donkey-mill, 15, 16
Dowth, boat-burial (*illus.*), 366
Drake North of Damerham, 41
Drithelm, 83
Driuesdale (Dryfesdale), 85
Druids, 315
Dubric, meaning, 37
Duerst, Ulrich, 50
Duke, Edward, 33
Dumbarton, place-name, 84
Dumfries, place-name, 84
Dungi, king of Ur, 239
Dur, meaning, 37
Durham, St. Oswald's cross-shaft, 130

Eadfrid, abbot of St. Albans, 356
Eadmar, abbot of St. Albans, 354
Eaglesham, 83
Easby, cross, 131
Easton Down, urnfield, 371
Edingham, place-name, 85–6
Edwardes, H. S. W.; Primitive culture in Nigeria and Britain, 287–90
Edwards, A. J., 290

Egypt, boat-burial, 362
Connexions with Russia (*illus.*), 384–6
Origin of writing, 167
Predynastic, 166
Sea-trade, 240–6
Social order, 172
Ekblom, E., 34
Ekwall, E., 34
Elam, 165, 169
Elath, deity, 48
Eleusis, harbour (*plan*), 225–6
Elgee, F., 365
Ellerburn, cross, 129
Elworthy, barrow, 154
Emst, 52
Erech, 7
Ertebølle, bone points, 324, 325
Esige, king of Benin, 72
Eskimo, fishing equipment, 325, 326, 328
Knife (*illus.*), 334
Estimaner, rabbit warren, 372
Eton College, 343
Eudoxus, 248
EXCAVATIONS :—
Bosumpra cave, Abetifi, 86–7
Harappa, 292–5
Lachish, 45–9
Olynthus, 207–8, 302–3
Tell ed Duweir, 45–9
Verulamium (*illus.*), 113–24
Ezion Geber, 243

Fa-hien, traveller, 244, 251
Falkenstein, Adam, 170
Farne, St. Cuthbert's dwelling, 88–9
Fernvail, 340
Fides, martyr, 346
FIELD (H.) *and* E. PROSTOV ; Archaeology in Uzbekistan, 194–6
Figurines, Russian (*illus.*), 385–6
Ur, 165
Fish, rock-engraving (*illus.*), 291
Fish spears, 325
Flat Holm, rabbit-warren, 373
Flint blades (*illus.*), 331–2
Implements, Mousterian (*illus.*), 194–5
Sickle (*illus.*), 332–6
Florentinus (saint), 338, 358
Folkton, cross-shafts (*illus.*), 129
Food-gathering implements (*illus.*), 320–36
Food-vessel interments, 81, 82
Forde, Daryll, 366
Foreshafts (*illus.*), 321–2, 325, 326, 328, 329
Forester, Richard le, 372
Forrer, R., 60
Forssander, J.-E., 53
Fowey, cist, 155
FOX, SIR CYRIL, 312, 315
Currency bars, 87–8
A datable ' Ritual Barrow ' in Glamorganshire (*illus.*), 142–61
Fractions, sexagesimal, 4–5
Frankfort, H., 173
Frazer, Sir J. G., 360
Frilford, sacred sites, 312, 313, 314
Frisian settlements, 84
Frobenius, Leo, 72, 73, 75, 80

Gainford, cross-shaft, 129
Galland, swordsmith, 309
Gallo, Andrea del, 267
Domenico del, 267
Ganton, barrow, 81
Garrod, Dorothy, 326, 331
Garstang, J., 163
Gawra, 7, 165, 168, 174
Geddes, Arthur, 290
Geoffrey, abbot of St. Albans, 343, 352
Geoffrey of Monmouth, 269–86, 305–19, 343, 353
Gerasa, 103–5
Germanus of Auxerre, 337, 347, 356, 357
Ghassûl, 168
Gildas, 272, 283, 315, 339, 340, 343, 344, 353
Gilgamesh, epic, 172
Gilla Coemgin, 318
Gillomanius, 306
Glasgow, bishopric, 85
Glass-making, 264, 265
Glastonbury, 3
Godsbury, 39
Gokstad, ship-burial, 360
Goldborough, field-name, 36
Goldcliff, 341, 342, 343
Gold Coast, microlithic industry, 86–7

Gormsson, Harald, 127, 132, 133
Gorsey Bigbury, 313
Gosforth, cross, 127
Gover, J. E. B., 34
Grain, impressions on pottery (*illus.*), 199–200
Grave-slab, Bibury (*illus.*), 135
 Levisham (*illus.*), 134
 London, 134
 Mané Lud, Morbihan (*illus.*), 364
 Novilara, 364
 Otley, 134, 140
 York, 129
Gray, St. George, 154
Great Canfield, Viking carving, 134
Greece, civilization, 13
 Harbours, (*illus.*), 223–6
 Influence, Far East, 92–4
 Social and economic history, 395–8
Grendlesmere, 42
Grevinge (Zeeland), boat-drawings (*illus.*), 368–9
Griffiths, Enid, 309
Grimes, W. F., 307
GRINSELL, L. V.; Boat of the Dead (*illus.*), 360–70
Gristhorpe, 370
Grundy, G. B., 39, 40, 42, 43
Gudea, diorite statues, 238
Gwales, 310

Habitations and soil analysis, 382–3
Hackpen, place-name, 33
Hafting, 334
Hagia Triada, sarcophagus, 363
Halaf culture, 163, 165, 168, 169, 173
-ham, suffix, 83
Hammurabi code, 171
Hamza of Ispahan, 254
Harappa culture, 11
 Excavations, 292–5
HARBOURS :—
 Alexandria (*illus.*), 209–18
 Centum Cellae (*illus.*), 228, 231, 232
 Eleusis (*plan*), 225–6
 Greece (*illus.*), 223–6
 Munychia, 223, 224, 225
 Ostia (*illus.*), 228–32
HARBOURS, *continued*:—
 Pharos (*illus.*), 209–16
 Piraeus, 224
 Puteoli, 228, 230
 Roman (*illus.*), 226–32
 Tyre (*illus.*), 218–22
 Zea, 223, 224, 225
Hare, in Wales, 378–80
Harlech, 310
Harman, M. C., 371
Harpoon, kingdom of, 209
Harpoons (*illus.*), 322, 325, 334
Harston, Iron Age pit, 19
Hatshepsut, 242, 243
Haverfordwest, map-names, 176
Hawkes, C. F. C., 1, 53, 87, 155, 157
 Reviews, 391, 399, 400
Helbaek, Hans, 200
Helith, god, 316
Hengist, 306
Henry, duke of Normandy, 341, 342
Henu, treasurer, 241
Herbert of Cherbury, Edward, 341
Hercules, 315
Hermes, Gertrud, 60
Heurtley, W. A.; Review, 207
Heytesbury, 39
Hiberno-Saxon art, 125, 129, 130
Hill-names, 36, 37
Hind, rock-engraving (*illus.*), 290
Hira, port, 254
Hiram, king of Tyre, 219, 243
Historia Britonum, 84, 283, 305, 318
Historia Regum Britanniae, 269–86, 305–9, 318
Hittite archives, 8
Hlaew, application, 36
Hodelme, 85
Hodson, 42
Hooley, R. W., 87
Hordestan, meaning, 42
Hormuz, 254
HORNELL, JAMES; Sea-trade in early times (*illus.*), 233–56, (note, 386)
Horses and battle-axes (*illus.*), 50–70
 Antiquity, 196–7
 Bits (*illus.*), 59–63
 Collars, 63, 125

Horses and battle-axes, *continued*
Introduction, 70
Remains, 95
Horseshoes, 314, 400
Hove, wood coffin, 366
Hughes, Admiral Sir Edward, 287
Humbrenses, settlements, 84
Hungary, Bronze Age, 298–301
Hunsbury, hill-fort, 18
Hvidegard, barrow, 370
Hweogolbeorg, meaning, 36
Hywel ap Rhys, 341

Iberians, 391–3
Ibibio tribe, 75
Ibn Majid, Arab pilot, 244
Ibo tribe, 75
Icknield Way, 43
Ife, bronzes (*illus.*), 72–80
Igla tribe, 77
Illtyd (saint), 317
Illyrian language, 96–100
Implements, food-gathering (*illus.*),320–36
Incas-stone, 259
India, Greek influence, 92–4
Sea-trade, 246–51, 254–6
Indochina, soil analysis, 383
Indus civilization, 3
–ingaham, suffix, 85, 86
–ingas, termination, 83
Ingelburne, river, 37
Ireland, boat-burials (*illus.*), 366, 368
Irenaeus, martyr, 346
Iron smelting, Nigeria, 289
Transport, 13
Value of, 10
Iron Age, 9, 10
Pit, Harston, 19
Ishtar, 48
Isle of Man, Norse crosses, 127
Isle of Sein, 308
Itzli, stone, 259
Iznik, 303–4

Jackson, Kenneth; Review, 96
Jacobus Alphaei (apostle), 355
Java, trade, 250, 251
Jellinge, Harald Gormsson's stone (*illus.*), 132, 133
Art, 125, 126, 127, 128, 129, 130, 132, 133, 134
Jemdet Nasr period, 7, 163, 165, 166, 171, 173
Jericho, 163
Jerusalem, temple, 218
Jondet, Gaston, 210, 213, 214, 215
Jones, H. Stuart, 226
O. T., 309
Judeideh, 7
Jukun tribe, 76, 77
Julius (saint), 339, 340, 341, 342, 343, 344, 355, 359
Julius Caesar, 115, 230, 271

Kaerbladon, 39
Kairdur, 37
Kairdurberg, celtic name, 37
Karachi, 255
Kathiawar, 239, 240
Kayal, port, 255
KENDRICK, T. D.; The Viking taste in pre-Conquest England (*illus.*), 125–41
Kentigern (saint), 316
Kenyon, K. M., 115
KERMACK, W. R.; Early English settlement, southwest Scotland, 83–6
Khorsabad, sculptured boats (*illus.*), 235, 237
Kikkuli, 198
King Barrow, hill, 36
King-lists (British) 274-86
Kingsbury, 338, 339
Kirkby Stephen, sculpture, 127
Kish, 254
Kisra, king of Persia, 76, 77, 79
Kivik, barrow (*illus.*), 368
Carvings, 370
Engraved slabs, 57, 58
Knaggegård, animal remains, 52
Knife, Eskimo (*illus.*), 334
Handle, Gebel el-Arak (*illus.*), 7, 236, 237
Knossos, boat-burial, 363
Knowlton, church re-consecrated, 316
Kosseir, rock-engravings, 234, 236
Kossinna, Gustaf, 56

Kültepe, 70
Kushite tribe, 76

Lachish, 45–9
Lagash, 248
Lailoken, 317
Laird, Macgregor, 78, 79
Lammy Down, 36
Lanfranc (archbishop), 343
La Tène burial, 53
Lear (king), 315
Lechler, Jorg, 57, 58
Leicester museum, 19
Leisters (*illus.*), 324, 325, 328
Leland, John, 373
Leofstan, 352
Leominster, pronunciation, 182
Lettering, English MSS. (*illus.*), 136–41
Levisham, grave-slab (*illus.*), 134
LEVISON, WILHELM; St. Alban and St. Albans, 337-59
 Review, 206
Lévy, Paul, 383
Lewis, Henry, 273, 282
Liddington castle, 40, 43, 44
Llanbadarn Fawr, map-names, 184–5
Llandaff, church, 340
Llanddwyn, monastery, 374
Llandovery, map-names, 177–81
Llantwit Major, barrow (*illus.*), 142–61
Llassar Llaesgyfnewid, 311
London, Roman, 114
 Viking tombstone, 134
 White Hill, 310
Longstaff, J. C., 34
Loose Howe, dug-out canoes, 365, 370
Lowe, R. Grove, 113, 117
Lowther, A. W. G., 115, 116, 117, 121
Lugbury, barrow, 38
Lupus of Troyes, 337
Lydney, 315
Lynam, Edward, 180

Mabinogion, 309
MacLullich,—, 290
Madagascar, migrations, 251–3
Magan, 238, 239
Magdalenian food weapons (*illus.*), 321–4
Magellan, J. H. de., 268
Maglemose barbs (*illus.*), 323, 324, 325, 326, 329, 330, 332
Mailcun, 285
Majumdar, N. G., 164
Malmesbury, 39
Mané Lud, rock-carvings (*illus.*), 364
Manishtusu, 236, 386
Mansel, John, 357
Manuscripts, initial letters (*illus.*), 136–41
MAPS :—
 Llantwit Major, 143
 Occurrence of rabbits in Wales, 375
 Place-names and, 176–93
Marcomir (king), 385
Marco Polo, 255, 256
Marlborough, 37
Martinsell, place-name, 33
Maskelyne, Story, 42
Ma'sudi, 254
Mathematics, 4
MATHESON, COLIN; The Rabbit and the Hare in Wales (*diagrams*), 371–81
Matholwch, king of Ireland, 310, 311, 312
Maumbury Rings, 314
Mawer, Sir Allen, 34
Meek, C. K., 80
Mela's nine virgins, 308
Melandra castle, 20
Melkart, temple, 218
Melukhkha, 238, 239
Mercurago, wooden wheels (*illus.*), 66
Merddyn, 317
Merlin, 271, 272, 306, 308, 309, 311, 317
Merrick, Rice, 373
Mersin, 163
Mesolithic food-gatherers (*illus.*), 320–36
Mesopotamia, chronology, 11
 Civilization, 162–75
 Predynastic periods, 168
 Social elements, 169–72
Metal working, 167–8
Metals, Mesopotamia, 167, 168
 Cost of, 10, 11
Meyer, Wilhelm, 337
Microlithic industry, Gold Coast, 86–7
Microliths (*illus.*), 329–31
Middleton, cross (*illus.*), 129
Mildenhall, 41

Milk Hill, 42
Millborough, barrows, 36
Millingchamp, Benjamin, 287
Milo of Hereford, 342
Minoan civilization, 3, 11–14
Mirrors (*illus.*), 257–68
Mistletoe, golden sickle for cutting, 315
Mjeltehaugh, incised slabs, 369
Modred, 354
Moir, Reid, 371
Monacella (saint), 378
Monuments, inventory of ancient, 383
Moore, Peter F., 309
Morris, Lewis, 380
Mossi tribe, 77
Mostyn, Sir Pyers, 374
Mottistone, 36
Mount Badon, 41, 43
Mount St. Albans, 340, 343
Mouric, king of Gwent, 340
Mousterian implements (*illus.*), 194–5
Mtepe, square-rigged (*illus.*), 249, 250
Mudge, Captain, 192, 193
Muller, Sophus, 61
Munychia, harbour, 223, 224, 225
Murano, glass-making, 267–8
MURRAY, K. C.; Nigerian bronzes (*illus.*), 71–80
MURRAY, M. A.; Connexions between Egypt and Russia (*illus.*), 384–6
Muza, trade, 248
Myres, J. N. L., 43

Naram-Sin, 236, 238, 386
Narmer, king of Egypt, 209
Natufian bone-points (*illus.*), 326
 Culture, 331
Neanderthal man, 194
Necho, 245, 246
Nennius, *Historia Britonum*, 84, 283, 305, 318
Neolithic culture, 163, 320
Neugebauer, Otto, 4
Newberry, P. E., 209
New Grange, boat-burial (*illus.*), 366
 Engraved slab (*illus.*), 366
New Hebrides, spears and arrows (*illus.*), 328
New Minster register, 141
Newton Tony, 36
Nicobar, fishing equipment, 326
Nigeria, bronzes (*illus.*), 71–80
 Primitive culture, 287–90
Nile–Suez canal, 217, 241, 242, 246
Nine Huntings, 380
Nineveh, 168
Ninian (saint), 85
Nodens, dedication, 315
Nordanhymbri, settlements, 84
Nors, gold boats, 369
NORTH, F. J., 155
 Geological features of barrow Six Wells, 271 (*sections*), 160–1
 Place-names and early maps, 176–93
Northumbrian settlements, 83–6
 Crosses, 84
NOTES AND NEWS, 81–9, 194–201, 287–91, 382–7
Novilara, grave slabs, 364
Nud (bishop), 340, 341
Numerals, Aryan, 198
Nunnington, cross, 129
Nuremberg, glass-making, 264
Nykerpole, 41

Obeid civilization, 162–5, 173
Obolla, 254
Obsidian, 258, 259
Obuasi, 86
Oduduwa, 76, 79
Offa (king), 350, 351, 352
Offering benches, Lachish, 49
Ogane, king of Benin, 72
Olynthus, excavations, 207–8, 302–3
Oman, 238, 239
Ommana, port, 249
Omonide, 76
Ophir, sea-trade, 243, 244
Ordnance Survey, 191–3
Orkney, inventory of monuments, 383
Ornament, Ringerike (*illus.*), 132–41
Oseberg, ship-burial, 360
Osney abbey, 269
Ostia, harbour (*illus.*), 228–32
Oswald (saint), cult, 85

Otley, cross-shaft, 127, 128
Grave-slab, 134, 140
Oussatova, horse bones, 52
Owen, George, 373, 380
Iorwerd ap, 341
Morgan ap, 341
Ox, early use, 63, 64, 65, 66, 67
Cart, 63–6
Yokes (*illus.*), 67

Pack-horses, use, 68, 69
Padarn (saint), 184
Page, William, 113
Palaeolithic remains, Bulgaria, 399
Palaetyrus, 222
Palestine, barbed points (*illus.*), 326
Paley, F. A., 363
Palmer, Sir Richmond, 79, 80
Paris, Matthew, 357
Parry, J. J., 309
Passage-grave, Stenstrup, 52
Patala, 248
Patchett, Florence, 155
Paul, abbot of St. Albans, 343
Pedigrees (Welsh), 276-80, 283, 284, 286
Pennant, Thomas, 374
Penninghame, 85
Penrhôs, 343
Pepi II, 241
Pericles, 224
Perkins, J. B. Ward, 117, 400
Persia, excavations, 196
Pestilences, 285
Petrie, Sir Flinders, 75, 269, 384, 385
Petroglyphs, Egyptian (*illus.*), 234–7
Pharos, lighthouse, 216
Harbour (*illus.*), 209–16
Phenacite, 259
Philippine Islands, bone-points (*illus.*), 333, 334
Picked Hill, 37
Pickering, cross, 129
Pickhill, tombstone (*illus.*), 127, 129
Pigafetta, 268
PIGGOTT, STUART, 154, 155
Grooved stone cists (*illus.*), 81–3
The Sources of Geoffrey of Monmouth, 269-86, 305–19
Pile-driving, Roman, 226
Pill (Pembroke) priory, 373, 374
Pin, Aunjetitz type, 370
Piraeus, harbour, 224
Place-name Society, 34
Place-names and maps, 176–93
Attitude of Ordnance Survey, 191–3
Britain, 99–100
Wiltshire, 33–44
Plagues, 285
PLANS :—
Barrows, Llantwit Major, 144, 160
Cist, Llantwit Major, 149
Samson, Scilly, 82
Harbours :—
Alexandria, 209, 211, 212, 213, 217
Centum Cellae, 231
Eleusis, 225
Ostria, 229
Piraeus, 223
Tyre, 219
Verulamium, 113
Plough-scenes, 64
Plynlimmon, canoe-coffin, 366
Po, river, 227
Poidebard, A., 218, 219, 220, 221
Pokorny, Julius, 96–102
Ports, portolan chart-names, 186–7
Pot-making, Nigeria, 288–9
Potter's wheel, origin, 167
POTTERY :—
Amri, 164
Burnishing stones (*illus.*), 200–1
Gawra, 164, 165
Impressions of grain (*illus.*), 199–200
Lachish, 48
Obeid, 163–5
Ras Shamra, 90, 91
Susa, 165
Pottery-tray, Russian (*illus.*), 385
Pozzuolana (cement), 226
Prae Wood, 115, 118
Prehistory, 388–90, 399–400
Publications, 202, 203
Presely mountains, 307
Stones, 310
Preshute, place-name, 33, 36
Psalters, references to (*illus.*), 136–41

Psamtik, 245
Ptolemy (Claudius), *Almagest*, 5
Ptolemy Philadelphus, 216
Puffin island, 374
Punt, sea-trade, 240–3
Puteoli harbour, 228, 230

Querns (*illus.*), 15–32
Quilon, port, 255
Quintinus, martyr, 345, 346

Rabbit, in Wales, 371–78
 Oldest written reference, 372
 Scotland, 372
 Warrens, 372–3
Radford, Ralegh, 155
 Review, 103
Radulf of Dunstable, 357
Ramsbury, 40
Ramses III, 243
Randall-MacIver (D.), Review of *Danmarks Oldtid* (by J. Brøndsted), 105–12
Ras Shamra, 7, 12, 90–2
Ravenstondale, rabbit warren, 372
Rayleigh, castle, 372
Redbourn, barrow, 356
Rees, V. F., 116
Rein-terrets, 70
Reisner, G. A., 362
Rennie, Sir John, 228, 231
Reshef, deity, 48
REVIEWS, 90–112, 202–8, 292–304, 388–400
Rhacotis, 215, 216
Rhuddlan, castle, 372
Rhyolites, 307
Richard, abbot of St. Albans, 352
 of Cirencester, 271
Richardson, J. S., 291
 K. M., 117
Richborough, 311
RICHMOND, I. A.; Saint Cuthbert's dwelling on Farne, 88–9
Ri Cruin, cists, 81, 83, 366
Ridgeway, 43
Ridgeway, Sir William, 54, 55
Riding, early practice, 54
Ringerike ornament (*illus.*), 132–41
Ritchie, James, 371, 376
Ritual barrow (*illus.*), 142–61
 of vegetation, 48–9
Robert of Chandos, 341, 342
 of Gloucester, 271, 342
 William, son of, 342
 of Lincoln (bishop), 352
 of St. Albans, 356
ROCK-ENGRAVINGS, 7
 Alpes Maritimes, 64
 Bohuslän, 64
 Egypt (*illus.*), 234–7
 Kivik, 57
 Mané Lud (*illus.*), 364
 Scandinavia (*illus.*), 367–9
 Scotland (*illus.*), 290–1
 Sweden, 57
Roger fitzMilo, 342
ROMAN :—
 Cemetery, Xanten, 358
 Coins, Verulamium, 116
 Mirrors (*illus.*), 262, 263
 Pavements, Verulamium, 119
 Theatres, 115
Ross, W. M., 291
Roumania, Byzantine art, 304
Rubruquis, William de, 6
Rufinus of Alexandria, 355
Russia, archaeological notes (*illus.*), 194–6
 Connexions with Egypt (*illus.*), 384–6
Rydbeck, Otto, 51

Sabaean, term, 244
Sahure, 240
St. Alban, *see* Alban
St. Albans, 337–59
St. Ninian's cave, 85
Sakjegözü culture, 163
Salisbury, place-names, 41
Samarra, 169
Samson (saint), 316
Samson (Scilly), cists (*illus.*), 81–3
Samsoun, breakwater, 222, 224
Sankhkere Mentuhotep, 241, 386
Sandstone, 307
Sannicola (St. Nicholas), 185–6
Sarauw, George, 199
Sarcophagus of Hagia Triada, 363
Savernake, 41

Sargon of Agade, 236
SAVILE, SIR L. H.; Ancient Harbours (*illus.*), 209–32
Saxon cemetery, 356
Saxons, reference to, 84
Saxton, Christopher, 179
Scandinavia, rock-engravings, 367–9
Schaeffer, A. E., 12
SCHWEIG, BRUNO; Mirrors (*illus.*), 257–68
Scotland, early English settlement, 83–6
 Rock-engravings (*illus.*), 290–1
Scott, E.; Review, 302
Scraper (Wilton facies), 86
Scrubbity barrow, 366
Scylax of Caryanda, 246
Seals, Gawra, 169, 174
Searobyrig, 41
Sea-trade (*illus.*), 233–56, 386
Seneferu (king), 209
Senni beds, 307
Sentinum, battle, 55
Senusret, 210, 241
Serabit script, 47
Severus (emperor), 349, 350
Sexagesimal fractions, 4–5
Shalborough, 36
Shaushshatar, 198
SHAW, C. T.; Microlithic industry, Gold Coast, 86–7
Sheba, port, 244
Shelbarrow Hill, 36
Shell artifacts, 239–40
Sheshonk, I, 243
Shetland, inventory of monuments, 383
Shipbuilding (*illus.*), 234–7, 241–5, 249–50, 252
Ship-graves, Scandinavia, 368–9
Ships, early types (*illus.*), 237, 248, 249
 Phoenician design, 245
Sialk, 196
Sickle, flint (*illus.*), 332–6
 Golden, 315
 Natufian (*illus.*), 334
Silbury Hill, 38
Silchester, excavations, 114
Silos, abbey, 394
Silver, value, 10
Simon, abbot of St. Albans, 354
Sinnington, cross, 134
Siraf, 254
Skerries, 374
Skokholm, pronunciation, 182
Slaughterford, 41
Slave raiding, 252
Smith, Sidney, 386
Snape Common, boat-burial, 360
Sockburn, cross, (*illus.*) 128
Soil analysis, 382–3
Solomon, 243, 244, 245
Solomon Islands, fishing equipment (*illus.*), 328, 329
Sompting, frieze (*illus.*), 135
Soul-houses, Egyptian (*illus.*), 385–6
Spain, architecture, 393–5
Spears, barbed (*illus.*), 324, 328, 334
SPEISER, E. A.; Beginnings of Civilization in Mesopotamia, 162–75
Spirals motif, 369
Spurs, 53
Starkey, J. L., 45
Staveley, cross, 140
Stein, Sir Aurel, 7
Stele, Erech, 7
Stenstrup, passage-grave, 52
Stenton, F. M., 34
Stevens, C. E., 312, 314, 315
Stirrups, 53, 54
Stone carvings, Yoruba, 77–8
Stonehenge, 305–19
 Transport of stones, 307
Stukeley, William, 33, 113
Stuntney Fen, 82
Suez–Nile canal, 217, 241, 242, 246
Sugar Hill, 41
Suibhne, 317
Sumatra, trade, 250, 251
Sumer, 169, 170–2, 175
Surparaka, port, 247
Susa, 165, 168, 248
Sutton Hoo, boat-burial, 360
Suvarnabhumi, 247
Swanborough, 41
Symphorianus, martyr, 345, 346

Taju tribe, 79
Talacre, rabbit-warren, 374

Talbot, Amaury, 74, 78, 80
Tammuz, 48
Tamralipta (Tamluk), port, 251
Tan Hill, 42
Tara, brooch, 126
Tardenoisian microliths (*illus.*), 329
Tarkwa, scraper, 86
Tasciovanus, 115, 280
Taylor, J., 291
Tegidda, 79
Tel el-Amarna, archives, 8
Tell ed Duweir, 45–9
Tell Halaf, 7
Tello (Lagash), 248
Temple, Lachish, 45–9
Temples, types, 313
Tewkesbury, 343
Thames, river, 340, 348
Thebes, chariot, 58
Themistocles, 224
Thomas, Alfred, 191, 192
 H. H., 306, 307
Thureau-Dangin, mathematician, 4
Thutmose III, 243
Tiber river, 226, 230, 231, 232
Tierra del Fuego, fishing equipment, 324–6
Timber circle, Bedwyn, 316
Tin-amalgam, 266–7
Tinhead, 41
Tisbury, 39
Tiv tribe, 77
Tombstone, Pickhill (*illus.*), 127
 Viking (*illus.*), 134
Tova, 352
Trade, control of foreign, 10
 Sea, 233–56
Trajan, 231
Traps, dead-fall, 199
Tripolye culture, finds (*illus.*), 385
Troy II, 69
Trugny, La Tène burial, 53
Tschudi, Aegidius, 185
Tub construction, 82–3
Tumblers, Susa, 165
-tun, suffix, 83
Turville-Petre (F.), 326, 331
Tushratta, king of Mitanni, 55
Tutankhamen, dagger, 91
Twynholm, 85
Tychion, craftsman, 13
Tyre, harbour (*illus.*), 218–22

Ugarit, 90–2, 172
Ullstorp, skull of horse, 51–2
 Dagger blade, 51
Unwona (priest), 354
Ur, 248
 Boat-burial, 362
 Terracotta figurines, 165
Urnfield culture, 97–102
URNS :—
 Crichel Down, Blandford, 154
 Crozon, 157
 Elworthy (*illus.*), 154–5
 Fowey, 155
 Six Wells, Llantwit Major (*illus.*), 152–5
Urr Water, 85, 86
Uruk, 165–7, 169, 173, 174, 175
Uzbekistan, archaeological notes (*illus.*), 194–6

Vasco da Gama, 244
Vases, 301
Vase-painting, 392
Vaticinia Merlini, 271, 272
VAUGHAN, H. M.; Madras catamarans, 278
Vegetation cult, 48–9
Ver, river,
Verney, Sir Henry, 193
Verulam, Earl of, 114, 115
Verulamium, 338, 339, 344, 350, 358
 Aerial survey (*illus.*), 120, 121
 Bibliography, 124
 Excavations (*illus.*), 113–24
 Historical events, 123
 Museum, 116, 117, 119
 Roman theatre, 119
 Temples, 121
Vienne, 345
Vijaya, 250, 256
Viking art (*illus.*), 125–41
 Ship-burials, 360
Villfara, barrow, 368, 370
Vita Merlini, 308, 309, 317
Vitruvius, 226, 227, 228
Vortigern, 271, 306, 311, 312, 318
Vortimer, 311

Wade-Evans, A. W., 339, 340
Wadi Gasûs, port, 241
Wagenaer, L. J., map-maker, 189–91
Waggon, early examples (*illus.*), 63–6
Wales, place-names and maps, 176–93
Walter, Hubert (archbishop), 341
 the Archdeacon, 270, 271, 272, 286
Wanborough, 36
Wansdyke, 44
War-chariot, *see* CHARIOTS
Ward, G., 400
Warka, 7
Watier, Henri, 222
Wayland's smithy, 309
Weather-vane, Winchester, 134, 137
Webster, Hutton; *The History of Civilization*, 1–14
Weill, Raymond, 210
Wells, H. G., 1
Wessex, origins, 43
Westbury, 39
West Gilling, round shaft, 134
Westminster, St. Stephen's chapel, 265
Wheat, wild, 332
Wheathampstead, 115
Wheeler, R. E. M., 114, 381
 T. V., 114
Wheels, Bronze Age (*illus.*), 66
Whethamstede, John, 357
White Hill, microliths, 330
Whithorn, 84, 85
Wild, R. P., 86
Wilfred (saint), 317
William, monk of St. Albans, 354
 of Newburgh, 270
Williams, Ifor, 269, 285
Wiltshire, place-names, 33–44
Winchester, church of Amphibalus, 353
 Currency bars, 87–8
 Illumination (*illus.*), 125, 132, 133, 135, 137, 139, 140, 141
 Weather-vane, 134, 137
Windsor, St. George's chapel, 265
Winterbourne Stoke, boat-coffin, 365
Woden's Dean, 42
 Grave, 42
Woodborough, 37
Woodbury, farmhouse, 3, 314
Woodhenge, 313
Worthy Down (Winchester), 87–8
Writing, 167, 170, 171
Wroxeter, Roman, 114

Xancus (*Turbinella*) *pyrum* L., 239
Xanten, church of St. Victor, 358
 Roman cemetery, 358

York, cross, 126, 127
 Grave-slab, 129
Yoruba tribe, 75, 76, 77, 79, 80
Young, G. M., 44, 316
Yspytty Cynfyn, 316

Zachrisson, Dr, 33
Zaghawa tribe, 76, 79
Zea, harbour, 223, 224, 225
Zeus Ammon, temple, 216
Zlota, animal-remains, 52

REVIEWS OF BOOKS

PAGE

Beza (Marcu). *Byzantine art in Roumania* – – – – – – – – 304
Brøndsted (J.). *Danmarks Oldtid* – – – – – – – – – 105
Childe (V. Gordon). *Prehistoric communities of the British Islands* – – – 203
Clark (Grahame). *Prehistoric England* – – – – – – – – 202
Dixon (P.) *Iberians of Spain, and their Relations with the Aegean World* – – – 391
Gover (J. E. B.), A. Mawer, *and* F. M. Stenton. *The place-names of Wiltshire* – 33
Hawkes (C. F. C.) *Prehistoric foundations of Europe to the Mycenaean Age* – – 388
Kraeling (C. H.) *Gerasa: city of the Decapolis* – – – – – – – 103
MacCurdy (G. G.) *Bulletin of the American School of Prehistoric Research* – – 399
Musées Royaux d'Art et d'Histoire à Bruxelles: Belgique Ancienne – – – – 206
Patay (Pal von). *Frühbronzezeitliche Kulturen in Ungarn* – – – – – 298
Pokorny (J.) *Zur Urgeschichte der Kelten und Illyrier* – – – – – 96, 100
Robertson (A. J.) *Anglo-Saxon charters* – – – – – – – – 295
Robinson (D. M.) *Corpus Vasorum Antiquorum* – – – – – – – 301
Robinson (D. M.) *and* J. W. Graham. *Excavations at Olynthus* – – – – 207
Robinson (D. M.) *and* P. A. Clement. *Excavations at Olynthus* – – – – 302
Rostovtzeff (M.) *Social and economic history of the Hellenistic World* – – – 395
Schaeffer (C. F. A.) *Ugaritica* – – – – – – – – – – 90
Schneider (A. F.) *and* W. Karnapp. *Die Stadtmauer von Iznik (Nicaea)* – – 303
Tarn (W. W.) *The Greeks in Bactria and India* – – – – – – – 92
Tufnel (Olga), C. H. Inge *and* L. Harding. *Lachish* II: *the fosse temple* – – 45
Vats (Madhu Sarup). *Excavations at Harappa* – – – – – – – 292
Ward (Gordon). *On dating old Horse-shoes* – – – – – – – 400
Webster (Hutton). *History of Civilization* – – – – – – – – 1
Whitehill (W. M.) *Spanish Romanesque Architecture of the Eleventh Century* – – 393
Wiesner (J.) *Fahren und Reiten in Alteuropa und im Alten Orient* – – – – 94

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Page

The History of Civilization. By V. Gordon Childe – – – 1

More about Querns. By E. Cecil Curwen – – – – 15

Wiltshire Place-names. By H. C. Brentnall – – – – 33

A Temple of Adonis ? By J. W. Crowfoot – – – – 45

Horses and Battle-axes. By Grahame Clark – – – – 50

Nigerian Bronzes : work from Ife. By K. C. Murray – – – 71

Notes and News :—

Grooved Stone Cists, Scotland and the Scillies, 81 ; Early English Settlement, Southwest Scotland, 83 ; A Microlithic Industry, Gold Coast, 86 ; Currency Bars, 87 ; Saint Cuthbert's dwelling on Farne, 88 ; Major George Allen, 89

Reviews (*for list see overleaf*) – – – – – – – 90

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REVIEWS

Page

Ugaritica : études relatives aux découvertes de Ras Shamra. *By* Claude F. A. Schaeffer 90

The Greeks in Bactria and India. *By* W. W. Tarn – – – – – – – 92

Fahren und Reiten in Alteuropa und im Alten Orient. *By* Joseph Wiesner – – – 94

Zur Urgeschichte der Kelten und Illyrier. *By* Julius Pokorny – – – – 96, 100

Gerasa : city of the Decapolis. *Edited by* Carl H. Kraeling – – – – – 103

Danmarks Oldtid. *By* Johannes Brøndsted – – – – – – – – 105

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A Quarterly Review of Archæology



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JUNE 1941

	Page
Verulamium. By Philip Corder	113
The Viking Taste in Pre-Conquest England. By T. D. Kendrick	125
A Datable 'Ritual Barrow' in Glamorganshire. By Sir Cyril Fox	142
The Beginnings of Civilization in Mesopotamia. By E. A. Speiser	162
Place-names and Early Maps. By F. J. North	176
Notes and News :— Archaeology in Uzbekistan, 194 ; Horses, Chariots and Battle-Axes, 196 ; Dead-fall Traps, 199 ; Impressions of Grain on Pottery, 199 ; Burnishing Stones for Pottery, 200	
Reviews (*for list see overleaf*)	202

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REVIEWS

Page

Prehistoric England. *By* Grahame Clark – – – – – – – – 202

Prehistoric Communities of the British Islands. *By* V. Gordon Childe – – – 203

Musées Royaux d'Art et d'Histoire à Bruxelles Belgique Ancienne: catalogue – – 206

Excavations at Olynthus (*part* 8). *By* David M. Robinson *and* J. Walter Graham – 207

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Edited by
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SEPTEMBER 1941

Page

Ancient Harbours. By Sir Leopold Halliday Savile – – 209

Sea-Trade in Early Times. By James Hornell – – – 233

Mirrors. By Bruno Schweig – – – – – – 257

The Sources of Geoffrey of Monmouth: I. The 'Pre-Roman' King-list. By Stuart Piggott – – – – – 269

Notes :—

Madras Catamarans, by Herbert M. Vaughan, 287; Primitive Culture in Nigeria and Britain, by H. S. W. Edwardes, 287; Rock Engravings in Scotland, by Gordon Childe, 290

Reviews (*for list see overleaf*) – – – – – – – 292

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REVIEWS

Page

Excavations at Harappa. *By* Madhu Sarup Vats – – – – – – 292

Anglo-Saxon Charters. *By* A. J. Robertson – – – – – – – 295

Frühbronzezeitliche Kulturen in Ungarn. *By* Pál von Patay – – – – – 298

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Excavations at Olynthus, part IX. *By* D. M. Robinson *and* P. A. Clement – – 302

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Edited by

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DECEMBER 1941

	Page
The Sources of Geoffrey of Monmouth. II. The Stonehenge Story. By Stuart Piggott	305
Some Food-gathering Implements : a Study in Mesolithic Tradition. By E. Cecil Curwen	320
St. Alban and St. Albans. By Wilhelm Levison	337
The Boat of the Dead in the Bronze Age. By L. V. Grinsell	360
The Rabbit and the Hare in Wales. By Colin Matheson	371
Notes and News :—	
Soil Analysis and the Location of sites of ancient Habitations, 382 ; Monuments of Orkney and Shetland, 383 ; Connexions between Egypt and Russia, by M. A. Murray, 384 (two *plates*) ; Sea-trade in early times, by James Hornell, 386 ; Antiquity (1942), 387	
Reviews (*for list see overleaf*)	388

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REVIEWS

Page

The Prehistoric Foundations of Europe to the Mycenaean Age. *By* C. F. C. Hawkes – 388

The Iberians of Spain and their Relations with the Aegean World. *By* Pierson Dixon – 391

Spanish Romanesque Architecture of the Eleventh Century. *By* W. M. Whitehill – – 393

The Social and Economic History of the Hellenistic World. *By* M. Rostovtzeff – – 395

Bulletin of the American School of Prehistoric Research, May 1939 – – – – 399

On dating old Horse-shoes. *By* Gordon Ward – – – – – – – 400

EDITORIAL NOTICES

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